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REMARKS
ON
THE MANAGEMENT,
OR RATHER, THE
MIS-MANAGEMENT,
OF
WOODS, PLANTATIONS,
AND
HEDGE-ROW TIMBER.

BY J. WEST,
Land Agent, &c. &c.
NORTH COLLINGHAM, NEWARK, NOTTS.

NEWARK.
PRINTED AND SOLD BY J. PERFECT, CARTERGATE.
LONGMAN & Co. LONDON.

1842.

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HEDGE-ROW TIMBER

W. WEST
LONDON
Main Lib.
1842

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1842.

TO
JOHN EVELYN DENISON, ESQ.
M. P.

SIR,

Having had the honor to spend nineteen years in your service as resident Land Agent—having during that period, as well as since, received from you many marks of favour—having on your Estate laid the foundation, and to some extent tested the accuracy, of the opinions which are given in the following pages; I am, I assure you, deeply grateful for the kind permission with

a

which you have favoured me, to dedicate them to you.

If I were to allow myself to indulge in the expression of feelings, which a recollection of my long connection with your Estates might prompt, I should risk your displeasure, for I well know, how distasteful to you would be the language of adulation ; I shall therefore only add, that it gives me pleasure to dedicate my Book to you, because, from long experience, I know you to be the zealous patron of improvement in every department of rural economy, and because you are practically and intimately acquainted with the subject on which I have written.

Encouraging as it would be to me if it were so, I do not expect that you will concur with me in ALL the views to which I have given expression : nevertheless, I trust I may be allowed

to hope that, in the main, the principles which are developed will approve themselves to your judgment, and command your approbation.

I have the honor to be,

SIR,

Your most obedient obliged Servant,

J. WEST.

North Collingham, Notts.

13th June, 1842.

to which it is the principle which
 are devoted with appropriate literature to your
 thought and command your attention.

I have the honor to be

Sir,

Your most obedient servant

J. W. R.

North Carolina, N.C.

1854 Jan 18

P R E F A C E.

IT has probably been with many others as it is with the writer of this, who finds the little which he has to say by way of Preface, more disagreeable, and more difficult, than he has found any other part of his book. A Preface, however, of some sort or other, must be written.

The writer cannot say, as some have done, that he has pushed off his bark, and is content to leave it to its fate—he does not pretend, with Kent, the author of “Hints to Gentlemen of Land-ed Property,” that “these hints are published from no motives of interest whatever”—on the contrary he is ready to avow, that, while he would

feel it, under a certain modification of circumstances, a most agreeable and congenial occupation of his time, to be employed in establishing a better practice in the management of Woods, Plantations, &c. he is not in a position to be so disinterested as altogether to lose sight of his own interest in the matter. Further: while he feels it to be an object of vast importance to the great body of Landed Proprietors, and others, that a new system should be laid down and acted upon, the Author wishes not to disguise the fact, that he seeks the honourable distinction of being permitted to assist in correcting the evils, which he thinks he may have been the first so strongly to point out.

The Author cannot but hope that he has proved all that can be fairly considered *as implied* in his Title; and if he have done so, it may be productive of much advantage to those who possess property in Woods, &c.: their attention being

once strongly called to the subject, they cannot fail to perceive that there is plenty for them to do.

The Author needs not to be told, for of that he is quite conscious—that his book is very defective in arrangement, and faulty in style, but if he have succeeded in the attempt to be tolerably “plain and perspicuous,” and “not very ungrammatical,” that is as much, perhaps, as ought to be required of a practical man.

One word is necessary here, with reference to Sir H. Steuart, whose name, as a Planter, the Author has mentioned at page 58. He wishes to correct an impression which he may have produced, that the honourable Baronet is altogether opposed to the practice of preparing the soil previous to planting. This is not the case; but Sir Henry, with singular inconsistency, after speaking in the highest terms in favour of trenching, manuring, &c. declares the practice to be inapplicable

to Plantations on a large scale. It is unnecessary to remark here, that on this point the Author is of a different opinion.

P. S. The Author reviews neglected Woods, Plantations, &c. and gives directions for their proper management, or he would contract with any Noblemen or Gentlemen to overlook their Woods, &c. at so much per acre per year.

INTRODUCTION.

IN writing the few "PLAIN REMARKS" which follow, I shall, in a great measure, confine myself to the consideration of two main points, viz.—the *present state*, and the *present mode of managing* such Old Woods, Plantations, and Hedge-Row Timber, as I deem to be under a course of improper treatment, suggesting, as I go on, an improved system of management of them all. Respecting both these points, I shall have to make statements which, to me, appear very important—statements, which I know cannot be controverted,—and which, though they may apply, as they are intended to apply, more particularly to some districts than to others, will, more or less, apply to all where Woods, Plantations, and well-stocked Hedge Rows abound.

Upon the second point in particular,—I mean the present modes of managing property of this description,—I shall endeavour to show in what respects, and, as well as I am able, to what extent, it is erroneous or defective.

But first, I would remark generally, that although the treatment of Plantations is bad enough, it is not so grossly bad as is that of Ancient Woods and Hedge Row Timber. I have, for some time, had it in my mind to write respecting the two latter, having been long convinced that a most extensive waste of property, and loss of time, was going on, but, until now, I have neither had leisure to prepare for, nor confidence to submit to, a “discerning public,” those views which have been matured during an eighteen years observation and experience.

I have now, however, resolved to print, and whatever may be the precise result to myself, if, by means of this publication, the attention of Noblemen and Gentlemen is drawn only to one hundredth part of their *neglected* Woods and Plantations, and of their *abused* Hedge Rows, so as to induce them immediately to determine to arrest

the progress of the mischief that is going on, and not only to commence the work of improvement, but to proceed to the necessary extent in carrying it on, two most important results, *at least*, will be produced; viz.; to Proprietors themselves a very considerable present or prospective advantage—in some cases both—and a large measure of real benefit to the Labouring Classes, in the increased demand which will be created for the labour of their hands. This last object is so vastly important, that an enlightened and benevolent mind will always be ready to listen to any suggestions that may be thrown out to promote it; but at a period like the present, when one great constitutional change in our domestic policy has been made, and when there is too much cause to fear that another is about to be tried,—each of which is as much *an experiment in morals* as any thing else,—it is invested with a much higher claim on the attention of those to whom the appeal may be made, than in ordinary circumstances it would be.

It will readily be seen that I refer to the new Poor Law and to the Corn Laws; the former of which throws the poor man almost exclusively on

his own resources. To provide him therefore with *healthful employment*, at such a time, and under such circumstances, will tend more than any thing else can do, to lessen the difficulty and danger of the transition from the old to the new law, and to mitigate the perhaps necessary severity of the provisions of the latter.

Before I proceed any further I would state, that I shall not attempt any thing like a systematic course, nor shall I confine myself to a scientific arrangement of my subjects: nor again, shall I trouble myself about the *technical* names of the several Trees which I may have to mention: nor, lastly, is it my intention to aim at elegance of composition. I do not write to establish a literary reputation, well knowing that to such an object I am unequal, and that if it were otherwise, there is a *want of adaptation* in my subject; but I wish to be understood as addressing myself to those who, not being themselves *practically* acquainted with the subjects here treated of, are not unwilling to listen to the opinions which I have formed, and profit by the experience which I have derived from close and extensive observation, while myself

actually employed in the details of management, connected alike with the Timber and Coppice of ancient Woods, with the planting and subsequent treatment of Plantations and with Hedge-Row Timber.

Of course I am aware that much has been said, and much has been written, by others who have preceded me, on these subjects, but notwithstanding that this be true, I am not at all of opinion that this branch of rural economy has received its fair share of attention, or that the subject has been viewed in that particular aspect in which it is here presented, highly important and interesting as that view must be acknowledged to be, when considered as it affects the growers of Timber, the labouring poor, and the community at large.

There will be many, doubtless, who will dissent from some of my opinions. They will have a good and sufficient cause to do so, if they adjudge them to be erroneous: they have just as much right to hold their opinions as I have to hold mine, but I wish it to be always remembered by those who may read the following pages, that every

conclusion to which I have been brought, and every inference that I have drawn, *has had its origin in actual experience.*

To practical men, and more particularly still, to such practical men as are like myself—to use a homely phrase—more at home in a Wood or Plantation than any where else—I need not make more than a general reference to what they daily see, in proof of the “mismanagement” which I intend to show, but as to the Proprietors it surely must be otherwise. They cannot, one would suppose, be at all aware of the fact, that one part, and that a most interesting and valuable part, of their property, is so *mismanaged* as to call loudly for an immediate remedy! I affirm, however, without hesitation, that while *Agriculture* has made rapid strides in the march of improvement, and while that first of all improvements in Agriculture, *Draining*—(although as yet but very imperfectly understood, and, in a very serious number of cases, *very ill done*)—has been extensively attended to—while the adaptation of Manures (although science has yet much to do, and much to teach us, on this point) has been carried to such an extent, as is unparalleled in

any age, and almost in any country but our own ; and withal so successfully, as to turn barren and hitherto sterile Wastes, Forests, and Moors, into productive occupations—while such an extraordinary degree of ingenuity has been applied to the invention and practical working of different implements, as to render the operations of husbandry comparatively simple and easy—and while yet once more, the attention which has been paid to the breeding and rearing of the various kinds of Stock, has raised them to a pitch of excellence which our forefathers never contemplated, and which scarcely leaves any room for further effort—while all this proves, I say, that the large landed Proprietors of this country, stimulated and assisted by the skill of the man of science, and by the enterprize and persevering efforts of the Tenant Farmer, have paid *almost* adequate attention to one part of their estates, it is equally undeniable that the present condition of *a large proportion* of the Woods, Hedge-Rows, and Plantations, furnishes proof of the grossest neglect, and a perfectly unaccountable want of attention. To point out wherein this neglect consists, and to prove this

want of attention, will be the object of the following "Remarks."

It is really surprising that in an age like this, when there is an onward movement in almost every thing else, such instances of "mismanagement" of Woods, &c. should every where meet the eye. If any one well acquainted with the subject, were to take horse and ride through every county of the kingdom, he would find in ninety cases out of a hundred, the Old Woods especially, to be in as bad a condition as if they were solely intended for fox or game covers, and incapable of being turned to any other use. They are permitted to continue precisely in the same uncultivated state in which their present possessors found them, Gentlemen too often totally overlooking the important fact, that while they might, by proper attention to the draining and improvement of their Woods, and the best mode of disposing of the produce, give employment to a very considerable number of their poor dependents ; increase the present revenue, and lay the foundation of a greatly improved permanent income from them, they would, to a very small extent,

if at all, injure the covers for sporting purposes.

As to Plantations, the treatment may be said to be somewhat better, but, as I have before said, in most cases it is bad enough, as I shall hereafter show.

Of the Hedge Rows I affirm, that they are, very generally, either left entirely to themselves, or to the tender mercies of the occupiers of the soil, who, having no interest in their success, but rather the contrary, cannot, of course, be expected to exercise any care in their preservation.

Having thus briefly introduced the various subjects which it is my intention to notice more fully under separate and distinct heads, I shall commence my first chapter with "Ancient Woods."

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CHAP. I.

ANCIENT WOODS.

WHILE professionally employed, and while passing from one part of the country to another, my surprise has often been great, when I have witnessed, from its effects, the indifference which many gentlemen manifest, as to the state and management of this description of property: there appears, in comparatively few instances, to be any thing worth the name of an effort to rescue them from that state of wild unproductiveness in which they have been for ages! One generation passes away after another, and like as was the father, so is the son—and as was the agent of the former, so is the agent of the latter! All they have done for ages gone by, they do now, and little or nothing more. They calculate, with tolerable accuracy,

the return of the year, when, according to immemorial custom, they ought to “cut, and hack, and hew,” and they go into the wood for the purpose of *setting out* the piece which they intend to fell: this they divide, in many districts, into a certain number of lots, or ranges, of what they call “Gad Wood,” which vary considerably in size, but which, as far as they go, include *all* the Underwood. At the same time, the sapient woodman contrives to satisfy himself—and it is seldom that his superiors make any inquiry into the matter—as to the number of *Oak Trees*, &c. that it is proper to take down; and then, after due notice given, the whole is sold, Underwood and all, by Auction.

It is a common practice to describe a *ring* round a portion of the Standard Trees which are to remain—such as the Oak, Ash, &c.—and these, of course, are intended for future timber, the selection being often as bad as it well can be, but the whole system, from the beginning to the end, is most objectionable, and it is matter of astonishment that it should have continued so long. It is objectionable for many reasons, among which I mention the following: viz.: because the Propri-

etor throws out of his own hands that *control* which a gentleman ought to have over every person who enters his woods, whether as a purchaser or as a workman. This control is absolutely necessary in order to secure two things, for which Conditions of Sale, however well they may be drawn up, offer but a very feeble security—I mean *the prevention of entry by teams, &c. at an improper season, and the clearing of the Woods at a given time.* There are other reasons which apply more or less strongly, according to the condition of the wood, *as to its stock, and the staple of its soil.* Carting, or rather *teaming*, for carts are not often used, will inevitably do much injury in woods that are *well stocked, if the utmost possible care is not taken, whatever the soil may be;* but if it be a *tenacious, retentive, cold, clay,* damage would be done in two ways: viz.: in the poaching of the land, and in that which would be done to the *stock* by the *wheels.* The injury to which woods are liable from these two causes, and others, may be almost wholly prevented by the active supervision of an intelligent woodman. Such a person will take care to divide

his cuttings as nearly as he can to suit the local demand, and to begin *as early as possible*, so that every opportunity may be seized, in *suitable weather*, for getting away the produce, and it must be his own personal duty to see that no *avoidable* injury is done to the stools by the carriages. These reasons appear to me to be quite sufficient to establish a decided preference for the mode which I recommend over the system to which I have referred ; but there is another, which I cannot but think will be deemed of importance enough by itself to decide the question, and it is this: viz.: *the impossibility of deciding, before the Underwood is cut*, what Oak Trees *ought*, or *ought not*, to come down. It is quite possible, I admit, to jump to a *conclusion* on the subject: to deny this in the face of the evidence which every succeeding Winter affords, would be absurd ; but I affirm that no woodman can do it *correctly*. He ought, at least, to have a *clear coast*, to enable him to give due consideration to the various points on which he should be fully satisfied, before he cuts down that, which his whole life would not suffice to set up again. How little consideration enters into

these matters, it is easy for those who really understand them to judge. For my own part, I am compelled to say, that I never yet saw a single instance, where timber was selected in the way to which I refer, without gross blunders being committed. But more than this may be affirmed—and it is not an over-weening fondness for my own plans, but a perfect conviction of the *utter want of adaptation* in the present practice of many, which induces me to say it—there is not *one solitary argument that can be advanced in favour of the practice which I have condemned*. If this be so, then let all gentlemen abandon it; if not, let the arguments be brought forward.

I have said that the whole system is wrong, and I add, that no good will be done by a patch-work attempt to amend it. So long, for instance, as a proprietor retains the “Gad-Wood” plan, he will insure the continuance of the old system of “mismanagement.” He might as well think of bending, by his own personal strength, one of the sturdy stems of his well-grown oaks, as attempt to turn his woodman gently aside out of his usual track—especially if he be an old man—there must

be a total revolution effected—he must be put into an entirely new course, if either the condition of the woods, or the revenue arising from them, is to be improved.

Unfortunately it seldom happens that customers are not found for all that may be offered, in almost any neighbourhood, and in any way. I say unfortunately, inasmuch as it keeps the managers of many woods exactly *stationary*, while everybody else is going on. If they had a little difficulty to contend with, it might, perhaps, induce a *little* reflection, and raise a doubt in their minds as to the propriety of the course they were pursuing; which would be a great point gained, as there has been *very little thought* applied to the management of this species of property, either by its owners, or by the persons they have employed.

There are, no doubt, many refreshing instances of good management to be met with—I could myself mention a few, were it not invidious to do so—but in a large majority of cases, from mistaken management, woods are in a high degree, and for many reasons, a discredit to those who belong to

them. If the Woodman's account were fairly examined—if a *Dr.* and *Cr.* balance sheet were exhibited, it would be found that the land was paying *a very small rent indeed from the under-wood, even where there might be very little oak*, which most assuredly ought not to be the case; for I contend that there is no Ancient Woodland which is not considerably below the average quality of what I have seen, that is not quite capable of *growing a full crop*—either of under-wood or of oak; and for this plain reason, viz.; because *the period of pecuniary sacrifice, the infancy of the wood*, is gone by: and that woodman's management is essentially defective, who cannot show, upon *every* acre under his care, a good crop either of the one or the other. I would here remark, that a *full crop of both* cannot contemporaneously grow up together; and this consideration is of far more importance in the management of woods than is at first sight imagined, or, than by a slight acquaintance with the subject would be perceived.

If there is found in a wood a superabundance of oaks, and if they are seen to be *thrifty*, nothing could possibly be so *ill judged* as to *thin them too freely*, even though the *crop of underwood were entirely sacrificed*; for, the very objects most to be desired, can only be attained by bringing about that state of things which is here supposed, and which necessarily involves *the sacrifice of the underwood*, or, at the least, all idea of any considerable *profit* from it. Under these circumstances, the exertions of the skilful Woodman will be directed to the securing of *great length of bole or stem*; for these, and these alone, are the trees which have any legitimate right to a place in a wood: and, of course, the longer their boles are, the better.

Having attained this object, the woodman will then anxiously employ the best means in his power, for encouraging the growth of the underwood, so far as, at least, to *keep it alive*, and as *healthy* as possible; and if he have well considered the subject, he will have contrived to lay down a plan, a regularly systematic plan, that his successors can neither mistake, nor, without some

good reason, depart from, by which, during the period that the crop of oaks is being taken, the stock of underwood shall gradually be acquiring strength and vigour, and getting well hold of the soil ; as well as that, they shall be so equally diffused over it, as fully and beneficially to occupy the ground, *when the oaks are all gone*. All these calculations, and many more, which it is impossible to enumerate, will suggest themselves to the mind of a man well-skilled in the management of woods ; but there are very few indeed, who either see the necessity of making, or will give themselves the trouble to make, any calculations at all. In the oversight of woods, &c. much more is included than is generally supposed. He who imagines, as too many do, that when woods have been cut, they may be safely left to themselves ; and that when the period comes round again for felling, they will do all that could be expected from them, has a very imperfect knowledge of the subject, or, rather, no knowledge at all : and further ; he who does not know that woods will ultimately pay well for the highest degree of care, attention, and culture, is not a

fitting person to have the oversight of them. But such is the ignorance on the part of many, who call themselves woodmen, and the carelessness of their employers, that there is a total negation of *forethought* and *calculation*, instead of every step that is taken having reference to a remote period.

A nobleman, or gentleman, or his agent, may calculate what will be the effect upon a farm at the expiration of a lease of twenty-one years, if it be not cultivated as it ought to be, and, by introducing certain clauses into the lease, he may secure himself against the certain and serious loss which would accrue to him from bad management; and he who does not so calculate, has a very inadequate idea of the nature of the contract which he is about to make; but the man who takes upon himself the management of woods, and whose views and plans are not extended over *several of those cycles of time which intervene between the seasons of cutting*, does not rightly comprehend the peculiar duties which he has undertaken to perform, and ought, at once, to be relieved from them, and provided for in some other way; for if woods are worth having at all, they are worth looking after,

and *if they will pay for proper culture*, which no one who understands the subject will deny, they ought to receive it, for various weighty reasons, which have been before adverted to.

The foregoing remarks will apply, of course, most directly, to woods where there is an *apparent redundancy* of oak. I will now suppose the case of a wood where there is a *deficiency*, or little or no oak. Here there ought, unquestionably, to be *a full crop of underwood*. This underwood ought to be adapted, as to *kind*, first, to the nature of the soil; and, secondly, to the *local demand*, *if the local demand be good*: and as to its *age*, of course it must be that which best suits the market, or when, comparatively, it will fetch the best price; so that in some districts, as in Kent, for instance, it will *sell* best, and therefore ought to be *cut*, at about twelve years of age: in others it would not sell so well at less than from fifteen to twenty years old. But it does *not* follow as a matter of course, that because a wood has always, previously, stood from twenty to twenty-five years, it should for ever continue to do so; on the contrary, I should say, that there are *very few woods indeed, if any*,

which ought to stand more than twenty years, and a great proportion of them, nothing like so long. The great reason why the produce of woods does not earlier come to maturity, is the gross "mismanagement" to which they are subjected: but when the time shall arrive that they shall be deemed worthy of as much "care, attention, and culture," as any other part of an estate, then will they be found, probably, to yield quite as good a return for it; and the present *no system* management will be exploded.

In all cases where the cycle has run beyond twenty years, it will, at least, be well for the proprietor, or his manager, to sit down and calculate whether the stuff would not pay better if felled some years earlier. The inquiry can do no harm; and much good may possibly arise out of it. In the case last supposed, viz.: a wood with little or no oak, *and well stocked with underwood of a suitable kind*, there cannot be a doubt upon the subject; for if the stock—by which term I mean the shoots which have sprung up from the stools—has been properly treated, it will have arrived, in twenty years, at a size quite large enough for

agricultural uses, and it can very seldom be allowed to stand longer without *serious injury to the stools*. A very little consideration will convince any one, who does not resist conviction, that such ought to be the state of a wood so circumstanced as to oak; but nevertheless the actual condition of most woods is widely different from this: instead of there being a full crop of underwood, where there is a deficiency of timber, or a full crop of timber, where there is little or no underwood, it too frequently happens that there is neither the one nor the other, even on land which is, as was remarked before, capable of yielding a handsome revenue! And here let it not be supposed that I am speaking of *extreme cases only*, or that there are but *few* woods in this state: the cases are numerous: I have seen, and could point out many, but this I shall not do: I rather choose to leave these observations with "all whom they may concern," to work conviction where they are seen to be *just*, quite indifferent as to the effect which they may produce on the minds of any who may oppose them.

And now let me ask—if *this be the state of many woods—if, neither a crop of timber nor of underwood is found—to what is it owing?* the reply is not difficult: it is *mainly* attributable to proprietors themselves, and to their agents: to woodmen in a subordinate degree. In proof of my first position, I would respectfully remark, that if a gentleman *chooses* to sacrifice every thing to the idea of having *good covers*; and, supposing that any thing which interferes with the primeval state of his woods, is incompatible with this object, *refuses to do any thing at them*, the woodman may not bear the blame. Again: if a proprietor happen, unfortunately, to have *such an aversion to felling timber*—and there are many such—that he will sooner let it *rot down*, or *allow one tree to destroy another*; or again; suffer the timber trees to stand so thickly that they not only totally destroy each other, but the underwood below also, the woodman ought not to be censured; except indeed, he have advised such a course, which I can hardly think any man accustomed to woods could do, in the present day. Once more; if gentlemen lack the moral courage—and I have

met with *some* of this description—to treat with the contempt which it deserves the vulgar meddling, the idle tattle of those who are ever ready to say, when timber is felled, that the owner's *poverty*, and not his *will*, consents to the deed, we are furnished with abundance of reasons for the serious waste of property that is going on, but the woodman is not in fault, neither ought he to be blamed. Lastly: if proprietors commit the management of their woods to persons who are wholly incompetent—as is too often the case—to discharge the duties confided to them, I cannot see that the men are to be condemned, but rather their employers. Wherever such “mismanagement” prevails as I have attempted to describe, and have seen so much cause to lament, it may generally, I think, be traced, either to ignorance on the part of woodmen, or inattention on the part of their employers: but it will be quite clear to all, who will allow themselves time to think on the subject, that the *grossest* mismanagement is to be met with, not on first, nor even on second, but on *third*, and *fourth-rate* estates, where *regular woodmen* are not kept, and below that grade

downwards, to property which is in the hands of Trustees, or mainly under the control of Solicitors, or Corporate bodies; or, which is probably worse than all, under the supreme direction of men who having, during the whole of their business life, had too many Stewardships, &c. *for any human being to look after and manage well*, cannot of course be deemed capable of judging rightly on a subject which requires *the closest possible attention, the nicest discrimination, and an extended and varied experience.*

Much mischief has also arisen from the employment by gentlemen, and by their agents, of persons, who, while they may, usefully and creditably, fulfil their duties as village carpenters and the like, cannot possibly possess those enlarged, comprehensive views, which are necessary to the proper management of timber generally, and Ancient Woods especially. I must here protest against the conclusion being drawn, that I am doing injustice to any class of men in remarking, as I have done, on their manner of discharging the trust committed to them. As to the professional gentlemen, either their *engagements*, their *position*,

or their *habits*, interpose an insurmountable difficulty, and relieve them from the charge of wilful neglect: and as to the others it is no injustice to them to affirm, as I do most positively, that there are principles and considerations involved in this subject, which they can, in no wise, grasp or comprehend: and so perfectly clear is this to me, so fully am I borne out by a long course of "observation and experience," that I have never yet seen one solitary instance, where *the timber taken down in thinning*, either in woods or plantations, *when in such hands*, has been properly done; and in *very few* cases indeed, either here, or higher up the scale, without the most *serious blunders*. One case has fallen under my observation this Winter, (1842,) where *oak timber trees were selected and marked for sale, which were exactly, in every respect, such as a good judge would wish to see in every wood; and not only, not too thick, but, from the same injudicious mode of selecting and marking at previous auctions, much too thin*. They were also in a state of *high vigorous health*, and moreover, there was no underwood which could be benefited! I admit that this was a more

flagrant outrage against the principles which ought to rule in selecting, than is usually committed, but the work is hardly ever done as it ought to be.

But whatever difference of opinion may arise among practical men, upon the points now under consideration, and on whomsoever the blame may rest, it is unquestionable that the actual state of a large proportion of our Ancient Woods is very bad indeed: they are either crowded *with inferior oak timber*, along with the most miserable rubbish as underwood; or, if they contain any thing valuable in either the one or the other, no *principles*, or rules of any kind, are applied in the management of them; and, consequently, they are, on some account or other, and of course more or less rapidly, *passing through the stage of deterioration*, and are annually losing to their owners, *a heavy per centage on their value*. In many cases, the oak, from ages of "mismanagement," is stunted in growth, and of a *form, and shape, totally unsuited to the place where it stands*; and the underwood consists of that alone which is indigenous to the soil, and which, therefore, no neglect can destroy, nor any culture improve: in addition to all this,

they are often, nay almost always, on clayey, retentive soils, *ruined with water* : they are periodically *shut up*, for from eighteen to twenty-five years, during which time, it is impossible to do any thing at them ; and, when they are cleared of the underwood, instead of the opportunity being gratefully seized, for the purpose of effecting those operations which can only be carried on at such a time, they are *shut up again*, and left in their original state—except indeed they may have been despoiled of some of their oak—nothing being *done at them*, or, if any thing, probably so little, or so *ill* done, that no good result is produced. But what ought to be the course pursued at such a time ? Why, as it is only during the year of “hagging,” and the following season, that any work of magnitude, any improvement worth mentioning, can be carried on ; a proprietor should more carefully examine his woods when they have been cut, than he would any other description of property : he should himself, if he understand it—which, however, is very seldom the case—or if he do not, by a person who is conversant with such matters, make a most rigid, and particular survey,

in order to satisfy himself *as to what ought to be done*; and this he must do *immediately when the underwood is cut*, or rather, as soon as any considerable portion is done, so that he may have before him *all the time which he can possibly command*, for carrying on, and completing, his improvements. He must not be deterred from commencing them by any consideration of *the remoteness of the prospect of return upon his outlay*; but, instead of visiting the sins of his fathers upon the generations following him, he must, if the case demand it, make a *present* sacrifice, for the benefit of his posterity: I say if the case demand it, but this will not very frequently happen, as there are very few instances of “mismanagement” where *the fear of cutting timber* has not been one of the principal causes of that mismanagement; and where this is so, there is at once found a source from whence may be obtained *the means of amply paying for any outlay that may be required*. I have thus far remarked only on what may, and what ought to be done, when Ancient Woods come to be *felled in the regular way*, and *at the usual time and age*; but there

are vast numbers of cases where, first, the condition of the woods is so bad, that all considerations about the *usual time*, are merged in the necessity for immediately commencing the work of renovation ; and, secondly, the instances are not few, where the same course is desirable, in order that a more profitable way of disposing of the produce may be introduced, to supersede the old jog-trot mode of getting rid of it.

With regard to the first, it will at once be perceived, by a practical eye, and a sound judgment, whether a wood is in such a state, *as to the prospect of a crop*, that it is the proprietor's interest to *make a sacrifice in the underwood and cut it*, although it may sell for nothing but faggots, *rather than finish, or run out, the term, at the end of which it would be cut in the usual course*. I have seen hundreds of such cases : there are many in almost every neighbourhood where woods exist at all ; and I confidently ask, what would be the use, or how would it be possible to show the propriety, of completing the term of the cycle, if, first, *the wood contained nothing valuable as underwood* ; and if, secondly, *it contained a considerable*

portion of timber that required immediate attention, on some account or other ? I should, for instance, instantly determine to cut, where I found a wood crowded with a class of unhealthy oaks, or other timber : but it is not necessary to particularize, as I would not pretend to give such directions here as would enable a gentleman to decide, for that could only be done *after inspection*. So many points have to be considered, that a careful survey of a wood must be made. This done, fortunately there is no difficulty in coming to a correct conclusion upon such a question as this. A practical man, who understands what he is about, will be in no danger of committing an error in the decision to which he will be led, for these are not subjects on which a difference of opinion might naturally arise upon an examination taken. The various considerations for *cutting*, or *forbearing to cut*, would so *certainly present themselves* to the mind of a person *really competent to judge*, that I should say there would be no doubt whatever, of his deciding correctly, if he were not interfered with by the personal wish, or taste, of his employer. It is with this as with most other subjects :—

wherever men understand what they are about, and are guided and governed by *fixed principles*, matters go on well ; but the misfortune, with regard to woods, is, that ages of “mismanagement,” and other causes, interpose obstacles and difficulties which it will be no slight task to overcome. To give a brief summary of my views upon this important point, I would remark, that no wood ought to be allowed to *run out its term* which is not *stocked as it ought to be*, or which, if stocked tolerably well, *is suffering injury from imperfect drainage*. As I have just said, these points must be determined by an examination of the wood by some person whose judgment may be relied upon ; but any gentleman may see at once, if he will, that if a wood is really in the state which I have supposed, viz., without either timber or underwood *worth standing*, &c. it would be perfectly absurd to *let it stand* ; for at the end of the cycle it would be very little better than at the beginning, and so much more time would be irrecoverably lost.

As to the second point—the *improvement of revenue to be derived from a different mode of disposing of the produce*, I am of opinion that

much might be done, in many places, without laying an increased tax on the local buyers, who are generally either farmers, or their tradesmen, the wheelwrights and carpenters of every neighbourhood, and who already pay quite enough for what they get; and especially the *former*, to whom I would much sooner recommend their landlords to allow an *abatement*, as an encouragement to them to keep their fences, gates, &c. in good order, than any thing in the shape of an advance. But still, much may be done to increase the returns from woodland property, by an improved system of management, and, first, I should advise *a careful assortment of the stuff after it is felled*: I would here, as in every thing else, *classify*, by which means, the different kinds, as well as the different sizes, and shapes, will come into the hands of such persons as they may exactly suit, instead of jumbling all sorts together, so that a buyer is obliged to purchase that which he *does not want*, in order to come at another portion of the same lot which he is desirous of having.

Secondly: There is room to doubt, I think, as hinted before, whether mistakes are not often

made, in not adapting the produce of woods better as to its *age*, both to the local demand, and the interests of the proprietor.

Thirdly: So numerous are the facilities in the present day, to what they used to be, for the transmission of produce of every kind from one place to another, and so many demands have, by commercial enterprize, been opened out, which were altogether unknown a quarter of a century ago, that it may, even as to heavy produce, like that of woods, be always questioned, *when the demand is slack, and when prices are low, whether the local market be indeed the best market*, or whether the produce may not be much better disposed of in some other way. That this sometimes occurs, I can prove from my own experience in many cases, but I will mention only one, which was that of an Ancient Wood, a twentieth portion of which was felled every year, and in which, from "mismanagement," a large quantity of the stuff was annually left unsold, but where, after the introduction of a better system, the whole was disposed of without difficulty.

Fourthly : A great increase of revenue may be derived from *a better mode of managing the stock*, both of timber and underwood : the latter may, by timely and judicious pruning, by a proper attention to draining, &c. *be brought to maturity* at a much earlier period than it has hitherto been done in many places, and thus, of course, be made to return a greater rent.

It is incredible how little is done to Ancient Woods compared with what ought to be done, *in the way of draining, pruning, stubbing up rubbish, and filling up with young plants* ; although it is manifest that, whenever a wood is opened, these important operations *should* claim the very particular attention of the proprietor or his woodman. But they do not receive it ; and hence one cannot wonder at the *stunted, unhealthy* appearance, which many woods exhibit. They are almost always without any *effective drainage*, it being generally thought quite sufficient to open out a few paltry drains, which the falling leaves of the first Autumn will *choke up*. It will indeed very seldom be found, that even the outside ditches are well looked after : whereas it should always


be the anxious concern of the woodman to provide, as well as he possibly can, for the *effectual drainage* of a wood after being felled, not only during a year or two, but for the term of the whole cycle. Of course I am aware that the leaves *must* fall, and, consequently, that the free egress of the water must, in some degree, be *impeded*, but, nevertheless, it is in the power of the woodman to provide, in a great measure, if not wholly, against this contingency, by making a sufficient number of ditches, of *ample capacity*, and by putting them in the best direction. But instead of this, it will very rarely be found, as I have just now said, that even the outside ditches are properly attended to. The consequence is, that the *oaks*, and our best underwood, the ash, not liking too much moisture, become diseased, and make comparatively slow progress: in fact, their *existence* is shortened by it, as the former will be found upon cold clay land, having a strong subsoil, to be very stunted and sickly in their appearance, and ultimately to die at the top, when, of course, they must be cut down; while the latter will much sooner become hollow, and they too, will finally

perish. A small outlay in draining, if judiciously expended, would, in most cases, prevent these effects, and as it would only require to be done once in fifteen or twenty years, it could not lay more than a trifling charge upon the land.

Pruning is also a very necessary operation in Ancient Woods, both of the oak and of the underwood. I shall not here enter upon an inquiry into *the general question of pruning*, but, continuing to treat my subject practically, venture to remark, that, as our woods are now circumstanced, pruning, of some kind or other, is, as far as the oak is concerned, quite *indispensable*. Whether it should be by *fore-shortening*, *close pruning*, or some other method, must be determined upon an examination taken, but I do not hesitate to express my belief, that *the pruning of oak trees in woods*, may be almost wholly dispensed with, after the few first years, *if they are well trained from the beginning*; but that being the case with very few, pruning *must* be resorted to. And as to the underwood, the question has still less difficulty in it. When a wood is well stocked with underwood of the right sort, the object to be aimed at by the woodman

is to bring it to maturity as soon as possible, and one means which he possesses, if he will make use of it, is *pruning*; which he should commence, after one year's growth, and occasionally repeat—say on the fourth and sixth years, allowing the intervals to pass without interfering with it. If this operation be performed as it ought to be, the stools will have a number of poles proportioned to their size and capacity of supporting them, and the poles themselves will not only be more of an uniform size, but they will be much straighter, and on every account better adapted to the use for which they may be intended. But if a wood be stocked with nothing but rubbish, such as hazel, birch, alder, &c. it will not be *worth* pruning, and the best course to take with it, would be to *stub it up*, and get rid of it altogether.

Finally, on this point, and more particularly with reference to timber, if the pruning be *judiciously done*, it will tend greatly to improve the health of the wood, but *the indiscriminate* use of the pruning knife might do much harm, it should, therefore, only be done under the most careful direction.



Stubbing up rubbish, such as *thorns*, *briers*, *birch*, and, in many places, *hazel*, is much to be recommended, as by this means, light and air will be admitted more freely, and the health of the wood promoted, and, of course, its growth facilitated. It is perhaps just possible, that there may be a few cases where the demand may be such for *birch*, *hazel*, or *alder*, as to warrant a woodman in keeping them as a part of his stock; but I have generally found, upon inquiry, that they have fetched such a miserable price, as to yield very little more than would pay expences.

The absolute necessity of filling up with young plants must be universally admitted, although *in practice*, it is very rarely done, or, if done at all, it is very generally so ill done, as to produce no perceptible improvement in the stock.

It too often happens that sufficient care is not bestowed in *selecting the plants*. They are frequently put in *too small*, and when they are long enough, they are often *deficient in thickness*. All plants put into old woods, should be of *good size*, *stiff*, and *well rooted*. Again: it will be admitted, that they are often planted in a most slovenly

and careless manner.—The following is a specimen of what I have *seen*. The workman takes his spade, and inserts it in the ground as far as it will go, *in a sloping direction*; he then raises it to a *perpendicular position*, which, of course, produces a “*nick*,” into which he *thrusts the plant*, and having put his heavy foot upon it, there and thus, he leaves it to its fate, and pursues his ill-directed labour, without a gleam of light breaking in upon him, as to the possibility of his being more usefully employed, or doing his work in a more effective manner! In this way, or in some such way as this, thousands of acres of Ancient Woods are treated every year; but it must be clear to every one, that such a practice is a disgrace to those who pursue it. If the workmen are asked their opinion of it, they will, in most cases, assure you, that the plants will “*all grow*,” but the misfortune is, that *experience* is against them. Both theory and practice are directly opposed to their view. But independently of facts, which every where condemn such methods, no one acquainted with the *rudiments* of the subject, needs to be told, that it is utterly unlikely that either

an oak or an ash plant should grow, under the manifest disadvantages in which it is placed, when its roots are thus *jumbled together*, and forced into a "*nick*" fit only for a willow set; and when, moreover, it has to commence its course in competition with other underwood, which has already possession of the ground. It is absurd to suppose that it should succeed.

I do not presume to say that some woods do not receive different treatment, in *all* respects, to that which I have denounced: that would not be true; but these are the exceptions, and even where the management is best, there is much to complain of.

In commencing the subject of Planting, I am impressed with a sense of the importance which should be attached to it in such a work as this. I mean planting by way of filling up, in Ancient Woods. I am quite aware that it demands such a largeness and comprehension of view, that it might well be supposed likely to discourage one of stouter nerves than mine. It is important because, first, every wood in the kingdom ought to be *well planted*, whether it is or not: It is so,

secondly, because there are very few that are properly planted.

As I have stated before, the infancy of a wood, or plantation, is the only time when it cannot be expected to pay. After it has arrived at a certain age, say from fifteen to twenty years, it ought to begin to make *some* return. In woods, if they are properly planted, it will necessarily be small during the first two cycles of twenty years each. It must be observed, that I am here speaking of the first forty years of an *Ancient Wood*, supposing it to have been thoroughly purged of its rubbish, retaining all the valuable stock, and to have been re-planted. The return must be small, because the oaks will have been planted thickly, in order that they may acquire great length of bole: and this being the case, whatever underwood may have been put in, it will be treated with direct reference to the health and prosperity of the entire class of timber trees. After the expiration of the first cycle, that portion of the stuff put in for underwood will be cut over, and such pruning of the oak as may be required (which will be very slight) will be done, care

being taken never to lose sight of the principle of *classification of the oaks, into certain families of larger or smaller size, according to the term which a skilful woodman will allot for their entire existence.* This is of immense consequence, and will embrace calculations, and a knowledge of the habits of trees, which can only be acquired by "close observation and long experience." Where a sufficient number of oaks have been introduced, the *underwood* will yield very little return per acre, even at the end of the second cycle; but if the wood has been well managed, it will have been kept alive and tolerably healthy; and when it is cut, at the end of forty years, a considerable number of oaks of a useful size for farmers, wheelwrights, &c. will be taken down: this will admit light and air, and in a slight degree, perhaps, improve the position of the underwood during the course of the third cycle.

I need not pursue the subject farther here, having, I trust, succeeded in opening to the reader a general view of the plan which should be pursued. But there are other woods where a larger portion, both of oak and of underwood, will be found, and

where, consequently, it will be more the object of the woodman to improve by *less extensive measures* than would be adopted in such a case as the one just referred to. It will mostly be best to do this by pruning, stubbing, and planting—always supposing that an effectual drainage has been secured—and here I would remark, that whenever planting is done in a wood, it should be as well done as circumstances will possibly allow. Instead of the “nick” system, or any similar plan, the woodman should dig holes for the underwood in the Autumn, and plant in February, or early in March. For oak, he should dig a larger hole, in the Autumn, give it a Summer fallow, and put in a vigorous, stiff plant, the Autumn following, or in the February next but one. If some such plan as this were pursued, there is not much fear but the plants would grow, and in this way woods may be gradually brought into a prosperous state, instead of their being, as they now are, in the aggregate, a *comparatively* valueless property to their owners.

I may here illustrate my view by a reference to a particular case, which came under my pro-

fessional notice. It was a wood held on lease by a gentleman, under an ecclesiastical body, the lease being for a certain number of years, renewable upon the payment of a fine every seven years. Some dissatisfaction was felt by the lessee at the amount of the fines demanded, and the lease was permitted to *lapse*, at which time the intrinsic value of the stock, whether of timber or *underwood*, was literally nothing. The oak was all gone, as it was quite natural that, with a lease so framed, it should be, and the underwood, instead of being usefully and beneficially occupying the ground, of which it then had *entire possession*, was not worth the trouble of cutting! How different would have been the position of the lessors in this instance, I need not say, if, during the two last cycles, when the oaks were becoming very thinly scattered, the underwood had been cherished, as it most undoubtedly ought to have been. The neighbourhood was one where there was plenty of demand for the produce of woods; the particular wood referred to, would have been, on every account, as good a cover, and all parties would

have been alike interested in the continuance of the lease.

But as I must now very shortly bring such of my "Remarks" as refer to "Ancient Woods," to a close, it may be as well just to run over the whole subject in a recapitulatory form, so as to present it to the reader in a sort of bird's-eye view.

I have, then, endeavoured to show, that the present state of the Ancient Woods of this kingdom is very far from what it ought to be, and fully proves that their owners have paid little attention to them: that they are almost valueless to them, simply and only for want of better management: that they are capable of such a degree of improvement as would insure from them a fair, reasonable return: I have endeavoured to show this by contrasting the plans of woodmen, if they can be said to have any, with those which, in my judgment, ought to be pursued; and I am not aware that I have, upon any one point, exposed the errors of their course, without suggesting that which I conceive would be the right one. It is quite impossible, however, to lay down in a book

like this, or in any other, specific rules or directions which shall constitute a sufficient guide for the manager of woods, out of the difficulties of a false position, or enable him to reform the errors of a vicious practice: for, first, not one woodman in fifty would be convinced, by any process of reasoning, that the present state of woods is so bad as I have described it to be; and if they would not admit the existence of the evil, they would not be likely to perceive the value of any remedial measures that might be recommended. Next: a difficulty would every where present itself, if woods were improperly treated, from the woodman feeling that the introduction of any new plans would, necessarily, involve the condemnation of his own. Besides all this, as I have remarked before, so many things have to be considered as to the state of a wood, before a safe opinion could be given as to the best course to be taken with it, that nothing less than a minute examination, affording the opportunity of duly weighing all the circumstances of each particular case, would justify any man in suggesting a specific course.

In proof of this, I would offer the example of a wood which I will suppose to be of forty years standing, and to have been started with as many oak plants as would suffice to insure a sufficient number of timber trees, possessing ample length of bole, or stem. Upon the plan of management which I have suggested, there would be, at the second cutting of the under wood, a certain number of oaks to cut out also, and from the stools of these, there would start young shoots, which, if *properly dealt with*, would, with those which would spring from every subsequent cutting, furnish a succession of timber trees; but if no care were taken in *nursing* them, the probability is, that they would be unfit for timber, and that it would therefore be necessary, occasionally, to introduce a small number of maiden plants, even as early as the expiration of the second cycle.

In proof of this, I would offer the example of a wood which I will suppose to be of forty years standing, and to have been started with an immense oak plant as would suffice to insure a sufficient number of timber trees, possessing ample length of bole, or stem. Upon the plan of management which I have suggested, there would be, at the second cutting of the timber wood, a certain number of oaks to cut out also, and from the stools of these, there would start young shoots, which, if properly dealt with, would, with those which would spring from every subsequent cutting, insure a succession of timber trees; but if no care were taken in nursing them, the probability is that they would be unfit for timber, and that it would therefore be necessary, occasionally, to introduce a small number of maiden plants, even as early as the expiration of the second cycle.

CHAP. II.

PLANTATIONS.

IN order to afford some facility to the reader in perusing what I may write, I shall divide what I have to say into several distinct heads; and, first, as to the

Present Modes of Planting.

Much may, and probably ought, to be said, on the errors of bad planters: it is indeed a prolific, as well as an important subject; and if there were any solid ground on which to rest a hope that an exposure of all the mistakes which are made in planting, would lead to the abandonment of such plans and practices as would be shown to be wrong, it would be a duty worthy the exercise of talents of the highest order. It does not, how-

ever, absolutely *require* the aid of brilliant talent, or fervid eloquence, to place these matters in their proper light before those who are most concerned; a plain reference to facts will be quite sufficient for that purpose.

The case of an Ancient Wood in an unthrifty and unprofitable condition, does not stand out so prominently—it is not so glaringly discreditable to its owner, as is a Plantation in the same state, which has been made by himself; for as to the former, the fact that “*it always was so,*” is, to a certain extent, an excuse for bad management; and in truth, it will generally be found a very difficult affair, as I have hinted before, to establish a *new system* where the prejudice of ages, in favour of an *old one*, will meet the person who may attempt it, at every turn; but it is not so as to Plantations; when, therefore, a gentleman decides to plant, and has himself to do with the work *from the beginning*, both his interest, and his duty, point out the necessity of his seeing that it be *well done*; but the very reverse of this, is the *average* of the general practice, as I shall presently show. It would be quite foreign to my

purpose, to refer to the minor shades of difference which exist in the practice of planters: such difference indeed may be met with, between plans which are each in themselves excellent; I shall content myself, therefore, with referring, and that in general terms, to the most glaring mistakes which are committed, giving a few examples.

To an eye that can take in the whole, it is lamentable to see the effects of ignorance and neglect, in the original formation, as well as in the subsequent treatment, of Plantations! With many, it seems to be expected that they will thrive and prosper, no matter how they may be put in, whereas the very contrary is the fact. With many planters there is a vague, indefinite notion—of course there is no *calculation*—that when once they are planted, trees will grow, not only without labour or culture, but under such adverse circumstances as at once convince the experienced planter of the utter impossibility of their doing so. As I have elsewhere said, a *young* child, a *young* animal, and a *young* tree, all require the greatest possible attention, and the tenderest treatment; and the blighting effects which must

result, and which do result, from *the absence of early attention*, are to be seen quite as strongly marked in the last, as in the other two.

In numerous instances—and this I shall call mistake the first—the trees are put in without any *previous preparation of the soil*. It is not possible, in the ordinary run of cases, to commit a greater error than this. It is, emphatically, to build upon a bad foundation, and it is very rarely indeed that Plantations, so commenced, ever make any thing out. When I say this, I do not mean to assert that they never become trees of any size: *unfortunately they do*, in some situations, and men are so ignorant—there is so little real scientific knowledge of the subject to be met with anywhere—that the most erroneous conclusions are drawn from this fact. The question as to what a Plantation might have done, or what it *would* have done, if it had been properly treated, is never thought of! No one ever dreams of instituting a comparison between such a Plantation as *it is*, and *as it ought to have been*. And yet this is the very first question which should be asked, or rather which should be *anticipated*.

But the majority of Plantations, which are commenced without any preparation of the soil, are complete failures, as may be seen by any one who chooses to take the trouble to examine for himself.

Influenced by a most mistaken notion of economy, many persons plant their trees on land which is already fully occupied—it may be, by ling, by bracken, or by long grass, or twitch—and in most cases of this sort, the greater number die ; but there may probably remain a few which sustain a feeble existence, so as just to make *a show of a Plantation*, and the owner seldom gives himself the trouble to attempt to ascertain why it is no better. The method usually adopted, when planting is done in this way, is, to dig small holes at fixed distances, into which the plants are put by the workman in the best manner that he can, and they are left to fight their way as best they may.

Mr. Withers, of Holt, in Norfolk, has ably, and indignantly, denounced the hole-digging system, and has shown, most clearly, the advantage of “*the highest degree of culture*,” for raising timber, whether as a pecuniary question, or where it is wanted for merely ornamental purposes. It

is true that an opinion at variance with his, has been given by some, but every practical man will, at once, perceive where the truth lies; nor will he be at any loss, whether, in the preparation of a field for planting, to follow the directions of Sir Henry Steuart, or those of Mr. Withers.

It was the practice of the latter gentleman, to trench his ground from "fourteen to eighteen inches deep," and on poor land, to "put on as much manure as if turnips were intended to be sown," and to hoe and keep clean the land, *for seven years after planting*. The results were, extraordinary rapidity of growth, and a consequent early and ample return upon the capital invested, in addition to the full accomplishment of an object, which is, of course, ardently desired by every planter: viz.: the pleasure of seeing rapidly rise up before him, a healthy and most promising race of trees.

The second mistake which I shall notice is a very common one; and is committed by those who *prepare the land well, but, by a bad selection of plants*, either as to age, or kind, or both, render success impossible. The error as to *age* consists,

most frequently, in their being *too old*: that as to the *kind*, in not choosing such as *are adapted* to the nature of the soil.

A third class of planters may be met with, who, to a certain extent, avoid all the mistakes previously referred to, but who commit the unaccountable blunder of throwing the various kinds promiscuously together, without any *regard to congeniality as to the plants*; and in this case, the trees that are really valuable are overtopped, and mastered by a set of *worthless trash*, which, when full grown, are hardly worth the trouble of cutting down. *When a Plantation is made in this barbarous manner, and left in this state for twenty years, or even less*, no subsequent efforts, however sound the judgment which is exercised may be, can *wholly* repair the mischief which is done. By this mistake, an immense loss of property accrues to the proprietor, and the worst of all is, that the trite consolation is not left him, that what is "his loss, is another's gain," for here nobody is benefitted; while to himself there is superadded the mortification of a *loss of time*, "which no man can restore."

That the strong language which I have here employed is fully justified, will at once be admitted by every reflecting person, who has any acquaintance with these matters; for it will appear at the outset, that if a slow-growing tree is planted close to one which will grow half as fast again, and if the slow grower is the tree *intended for timber*, the latter must inevitably be so much damaged as to affect its health for ever, if something be not done to relieve it.

I shall not, in this place, "remark" more particularly on this point, than to say, that I have often seen the oak in this relative position, with the alder, the birch, the poplar, the larch, and other trees.

To imagine that a comparatively slow-growing tree can be placed in near contiguity with another whose rate of progress is much quicker, *without* receiving injury, is to manifest a want of knowledge of the habits of trees, which may be excused in an amateur planter, but which cannot be overlooked in a practical man, who is well paid for his services.

A fourth error which is committed, is one upon which I have slightly touched already, and refers to the question of *adaptation of the kind of tree planted*, first, to the nature of the soil planted upon, and next, *if the object of the planter be profit, to the local demand.*


Most serious mistakes have been committed upon both these points, even by men whose writings have procured them a niche in the Temple of Fame. Under this head a few cases will now be referred to.

It is impossible, at this distance of time, to fix the exact amount of blame, or responsibility, which of right attaches itself to the name of *Pontey*, for instance, who planted an immense tract of land near Lincoln, belonging to that splendid charity, Christ's Hospital: tradition, which, however, may do him injustice, accuses him of having contracted to plant with Larch and Oak, and having, on some pretence or other, substituted Scotch Fir.

Whatever was the precise amount of *responsibility* attaching to him, I know not; he might be following out the letter of his instructions, for

ought that I can tell, but it is quite certain that, even with the then imperfect knowledge which was possessed of the value of larch, *a very great mistake* was committed, in planting nearly a thousand acres of land, which was well adapted both for oak and larch, with profitless rubbish like that which is now seen upon it. A work of that magnitude ought not to have been intrusted to any one who, either from mercenary motives, or from limited views, was capable of falling into such a gross error, as to the interests of his employers. It is no exaggeration to say, that if the Skellingthorpe Plantation had been planted, as it ought to have been, with oak and larch, together with a few spruce firs, and if Pontey had left *suitable instructions with those who had to take care of it, after his superintendence had ceased*, it would now have been, at the most moderate computation, *fifteen hundred per cent. more valuable than it is!*

If it were *private property*, I should not presume to add what I now feel myself at perfect liberty to do, with reference to its present condition, and the future prospect respecting it.



It is at present, almost universally, a *Scotch Fir Plantation*: these are of a most miserable size, compared with what they might have been, under good management, and they are withal very coarse. There may be seen amongst them, just Larches enough to perpetuate the folly of the original planter; and to excite, at his periodical sales, the keen regret of the present Steward, that he has not more of them to sell. There are also a few oaks, of such quality as fully to prove that they would have thriven well—had they been planted. Further: the Scotch firs are so thick, and they are *feathered down so low*, that the Plantation is not *healthy*. It is true that, under the present *much improved* management, an attempt is being made to remedy this evil, and it is quite clear, that the condition of the trees will gradually be bettered, but the misfortune is—and here I come to speak of the *prospects* of the Plantation—that *they are not worth culture*. I have no hesitation in stating this to be my deliberate opinion. The timber, if timber it can be called, is worth almost *nothing now*, and, in such a locality, I can see no probability of its ever

realizing, so as to justify those in whose care it is placed, in continuing it as it is. The plain and obvious course of the managers of this fine estate, then, is *to stub up the Scotch fir, and replant the land with oak and larch.*

In further proof of the propriety of this opinion, I would remark that, in this locality, both oak and larch fetch *very high prices*, and there are probable grounds for expecting that they always will do so ; while, if the present race of Scotch firs should stand as long again as they have already stood, they will make comparatively little.

It is not too much to say, that if this Plantation were the property of a private gentleman, the Scotch firs would be extirpated as speedily as possible, and a systematic plan, providing that a certain number of acres should be stubbed and re-planted every year, would at once be laid down ; but public bodies are not so easily moved, and it is therefore to be feared, that, in this case, the *public* will not, for some time to come, derive that benefit from the property, which would certainly be the result of proper management.

The whole might be re-stocked with suitable kinds of trees, without any considerable outlay to the hospital, if arrangements were made with a party capable of carrying out some such comprehensive plan as the following; viz.: An agreement with a responsible person, carefully worded, providing that he should stub, or grub up, a stipulated number of acres at the commencement of a sort of lease, *taking the stuff*, either in part payment, or wholly, if it were *sufficient*: and that he should, on such terms as could be agreed upon, continue to grub up, *and plant*, a specified number of acres every succeeding year.

In twelve years, *if the work were well done*, there would be some return from the *thinnings of the piece first planted*; and the *rate of return* and profit, would, from that time, *continue to increase* every year, until an amount would be realized which would much more than equal the largest expectations of the Governors.

I shall only mention one case more, as to the want of adaptation of the kind of tree *to the soil*, and to the local demand, and that is a wood belonging to the Right Honourable Lord Middleton, at

Stapleford, near Newark, and which, some years ago, consisted almost entirely of Scotch fir. It is now of an age and size that enables me to cite it in proof of the opinion which I have given, relative to the *prospect* for the Skellingthorpe Plantation. The timber has arrived at a good marketable size, and is sold at as high a rate as there is any reason to suppose would be made of the Skellingthorpe Scotch, when it shall have reached to the same size. That price is *apparently* moderate, but it is so inferior in quality, or, perhaps, it is more correct to say, such a bad opinion is formed of it, by most people, that when it is converted into boards or scantling, the price it fetches is so low as to hold out little inducement to Timber merchants to purchase it. And as to the grower, I am persuaded that, if simple interest upon the original investment were to be calculated, up to the time when the wood first began to clear its own expences, and added to the first cost, it would not be found that there is much surplus over the necessary expences of management. At all events it would be seen there, as well as at Skellingthorpe, from the little Larch and Oak

which they have had to sell, that the returns are comparatively small to what they would have been, if Larch had first been planted along with Oak. This large Plantation will, in the course of a few years, under the present enlightened and skilful management, to a great extent, be cleared of the Scotch firs; in place of which, the noble proprietor will have *a race of fine oaks*, thus proving; to actual demonstration, the great mistake which was originally committed, in occupying the land with a class of trees which, when they have arrived at *maturity*, are of comparatively little value.

I pass on to remark upon a fifth error. One gentleman will, from motives of economy, *stick in the plants with as little labour as possible*: another will aim at the same result, by putting in fewer, or smaller plants than he ought to do. Both these, and indeed all the parties, who are influenced by the same narrow and shortsighted views, greatly err: these are not the *cheapest*, but the *most expensive*, as well as the worst adapted, modes of planting. To insure a healthy and vigorous *commencement* to a Plantation, if that is followed up by suitable treatment afterwards, is to secure both

rapid progress, and early maturity, and by necessary consequence, the largest possible amount of pecuniary return.

Lastly, as to modes of planting, and without ranging either party among those who are clearly and decidedly *mistaken* in their views, one class of persons will plant *thickly*, and another class will plant *thinly*, from various motives, but both without paying due regard to the capabilities, and adaptation of the soil, and, as is very natural, in the absence of all calculation, both are frequently subjected to the same result,—either a partial or complete failure of their expectations.

It is neither my purpose, nor is it in my power, to decide, upon paper, what is the best average distance at which the trees of a young Plantation should be placed from each other. Many questions ought to be previously asked, as many very important considerations will present themselves to the mind of a practical man, before he will decide.

In the average of cases, where *planting for profit* is the object, the question is not one of much practical difficulty; but in many others,


the primary purpose, or the ultimate aim, of the planter—the local market—the cost of plants, &c. will claim very special attention.

When the object is to beautify the Landscape, or to produce effect in the immediate vicinity of a Mansion, it will be necessary to set aside ordinary rules, and to depart from *some* of the recognized principles which ought always to govern, in planting for profit. But even here, nothing should be done, nothing should be attempted, which is not in strict consistence with those general laws which the principles of vegetable physiology impose, alike on a Gentleman who removes a large tree upon the plan recommended by Sir Henry Steuart, and on the practical Planter, who is professionally employed to plant a large tract of country.

It is no part of my business to remark upon the merits of the respective plans which have been tried by different persons, for enriching the scenery of a Park ; but I have no difficulty in saying that, where it is well understood and properly carried out, the combination of Sir Henry's plan, with the judicious arrangement of small

Plantations ; putting into a well prepared soil, good, stout, well-rooted, and vigorous plants, at a considerable distance, will best effect that object. And as I have referred to Sir Henry Steuart's method of removing large trees, it will not be out of place here to observe, that the *abuse* of that plan has very frequently brought it into disrepute, and given birth to the conclusion, that it was not adapted to the end proposed : and thus blame has fallen on the ingenious, skilful, and scientific Baronet, instead of its resting on the heads of those whose "mismanagement" had actually invited the failures which they were doomed to suffer.

Those who have most carefully attended to Sir Henry's instructions in removing large subjects, will have been most successful ; and while they will be the first to admit that the plan is one of very considerable difficulty, and requiring the greatest possible amount of attention ; they will be the most powerful and decided witnesses in its favour, for the purposes for which it is here recommended.



But when Plantations on a large scale are desired, and when the planter considers his *posterity* more than himself, there can be no doubt at all, that, on certain qualities of soil, *tolerably thick* planting is best. And if it be desired to have a race of fine noble Oaks, they must be put in *very thick*, and the planter must not expect, during a life of average duration, *any profit at all*; for, in order to secure his object, he must, first, *prepare the ground well*: and next, he must either *sow acorns*, or he must put in *an immense number of plants*—and, in either case, he will incur a heavy outlay. He must, for the first seven years, *keep the ground clean*, and he must plant along with the Oak, a selection of those kinds of trees, *as nurses*, which are best adapted to the purpose, and not those which might probably, at the earliest period, find their way into the *local* market, and make the best price when there; although these points should not be left out of consideration.

But now, the question as to planting, or sowing, or, if the former be preferred, that of the distance of the plants, being settled, the next

which presents itself is this: what kinds shall be planted as the

Nurses for the Oak.

Here again, a good deal will depend upon the object of the planter, the nature of the soil, and the exact arrangements which are made at the time of planting; for it might be quite proper to plant a species of Tree in one place, while, owing to a difference in the staple or the condition of the soil, it would be just the reverse in another.

The remarks which I shall have to make on this subject have, in some degree, been anticipated by the observations which I have already made, respecting the Skellingthorpe Plantation, but a more particular reference to a few well-known kinds, may not be amiss.

I begin with the *Larch*, which, from its great value to Farmers and others, is fairly entitled to precedence.

The *Larch* is found, in greater or smaller proportions, in most places where Plantations are

made ; and it is entirely the planter's fault, if he be not well acquainted with its character, as a nurse for Oak. I say this, because it has been so extensively tested, and its habits are so well known, that no one, having the slightest wish to become acquainted with it, can have failed for want of opportunity.

I have very often seen the Larch where it has proved an exceedingly bad nurse ; where, in fact, instead of nursing the Oaks, it has destroyed them : but this has, of course, arisen from "mismanagement," and might have been avoided. When good, stiff, healthy Oak Plants are put in with Larch only, or but with very few of any other sort, the Larch ought not, in the first place, to be put *too near*—the exact distance can only be determined relatively to that of the Oaks—secondly : an advantage should be given to the Oaks, if possible, *at the start* ; either by assigning them a portion of the soil from the land intended for the Larch, or in some other way ; after which, if the latter are constantly watched, they will approve themselves very suitable and valuable nurses ; but if they are allowed, as they

too generally are, to take the lead of the Oak, they will plentifully avail themselves of the licence, to the serious and, perhaps, irreparable injury of that plant.

For large Plantations, intended for profit, it may be questioned whether, in the first instance, any thing else than Oak and Larch should be planted, and the distance must be decided after due consideration is given to the quality and condition of the land.

If, however, a disposition is felt to plant other kinds, as nurses, there can be no objection, provided that their companionship is made fully to square with the well-being of the trees intended for timber.

But where it is intended to introduce nothing that shall not act as a good nurse for the Oak, exception must certainly be taken to the Alder, the Poplars, the Sycamore, the Horse Chesnut, the Birch, and the Scotch Fir, &c. Not one of these discovers any congeniality for the Oak, nor any fitness for the office of nursing it; and it does really appear to my mind, as most unaccountably strange, that trees of all sorts should, without

forethought, or calculation—and most particularly, that no reference should be made to their suitability or adaptation for the circumstances in which they are to be placed—be planted at a greater cost than would have sufficed to procure an ample number of the right sort.

Upon a suitable soil, the Spruce Fir has always appeared to me, to be decidedly and incomparably the best nurse of the Oak. I have, for instance, often seen, on a clay soil, a Spruce Fir, and an Oak of twenty-five years growth, flourishing admirably, in close proximity with each other—even within a foot and a half. I do not think that this could be said of any other tree than the Spruce Fir; but besides this, there is almost always a very peculiar healthiness about the Oaks, where the Spruce has been planted and cherished as the principal nurse. There seems to be the best possible understanding between them—no struggling for pre-eminence—no blighting influence exercised by the one over the other. But the Spruce Fir is not found to flourish so well on some soils as on others: it will therefore, mostly, be advisable to unite with it, for a number of years, the *Larch*,

*Spruce
Fir for
Oak*

which may be so placed as to be all weeded out during the course of thinning, which ought to commence in a few years after planting, and go on until there remains nothing but Oak in possession of the ground.

In concluding my remarks on Planting, I cannot help referring to the specimens of sowing and thick planting, which may be seen on the extensive estate of the Duke of Portland, at Welbeck, and in that neighbourhood. It has always been His Grace's practice, either to sow Acorns, or to plant Oaks, in alternate beds, having Larch between. If the Oaks were planted, they were put in *very thickly*; and although their progress was necessarily slower than it would have been, if they had been allowed more room, it cannot be doubted that His Grace had a great advantage in the almost unlimited choice which it gave him, of trees of *perfect form*, for the ultimate crop of timber.

The system of *thick planting* has been fully carried out: having prepared the ground well, His Grace appears to have never lost sight, for an instant, of the young trees that he had undertaken

to rear: there has been no mistaken practice—no niggardly economy—no ruinous neglect, rendering all his previous care abortive, and sacrificing his large outlay at the commencement. When the Plantations have required attention, they have evidently had it.

The admirer of fine timber will see, in the Duke's Plantations and grounds, some of the most perfectly formed trees that can be conceived of, and that not on a small scale, but to an extent as comprehensive as that truly noble Duke's genius, of whom it may probably be said that he unites, in his mind and person, as many of those qualities which constitute true Nobility, as any Gentleman of his day.

It is not in the power of my feeble pen to show the immense amount of good which has accrued to the immediate neighbourhood, from the employment of the poor in the locality, in carrying on, and in completing, those splendid improvements which His Grace has originated, and which have caused the literal desert to "blossom as the rose": much less can I describe the area of the vast circle, within which the most

beneficial effects have been felt, from the influence of the noble Duke's example, while perfecting, as he has done, his various plans for the improvement of his fine estate.

In the Welbeck Plantations will be found, as I have said, a class of trees, most perfectly suited to the situations where they stand, and giving the surest promise of future superiority: but what, let me ask, would have been the quality of the Oaks, if the noble Duke had jumbled together an incongruous admixture of *various sorts*, as has been recommended by various writers of eminence, even in our own day? I am not disposed to enter into a controversy with any of those who have recorded their opinions in their writings, otherwise I might have plenty of work on my hands: it will be quite as much as ought to be expected from me, if I defend my own: but I would just quote a single paragraph from an interesting and useful, but, on some points, incorrect volume, published by "The Society for the diffusion of Useful Knowledge." It is entitled "Useful and Ornamental Planting." The passage to which I refer, will be found in the 43rd page, and runs thus:

“ *Simple Plantations* consist of one or two species of trees only ; *mixed Plantations* of many different species. The latter, on suitable soils, are the most profitable : they afford an earlier, more permanent, and a larger return for Capital than simple Plantations.”

In a book where there is so much to commend, where so many valuable practical directions are given, it cannot but excite regret, to meet with a paragraph so vague and unsatisfactory as the above ; for I cannot but remark, that if any planter should adopt the suggestion which is thrown out, it will end in disappointment and loss. It will, in my judgment, generally be best for the planter to select such trees for nurses as are most congenial, and best adapted to the local market ; and surely these will not be the Birch, the Beech, the Alder, or the Scotch Fir ; none of which are ever found to answer the purpose of nursing the more valuable timber trees, or of securing a fair return for the investment of capital.

It is true that the opinion which I have quoted, is afterwards qualified by the remark, that certain “ circumstances connected with the growth of the

various species of forest trees, effectually control the planter in his modes of arrangement, &c." but even with this limitation, the planter is liable to be misled, for he is not taught to set a higher value upon the Larch, which may in almost every locality be planted with a much better chance of profit, than the other kinds with which it is ranked, and which ought therefore, if profit be the object, for that reason alone, to be preferred.

In any thing else but planting, the mischief of such a mistake, as producing that which was worthless when produced, would, in a short time, have cured itself; but so little of science, or even of common calculation, have been brought to bear upon the practice of Arboriculture, that, notwithstanding the evidence which is every where to be met with, of serious "loss and disappointment," for want of calculation, these matters go on very much as they "always have done."

Finally, as to planting, it must, in every case, be perfectly clear to one who is competent to judge, that, whether the object be profit merely, or the embellishment of the landscape, the land ought to be as well prepared as circumstances will

permit, and that *such species of trees should be preferred, as are best adapted to the specific object of the planter.*

The distance at which the plants shall be put in, is more a matter of opinion than some planters would be inclined to admit. For myself, I am disposed to think, that some advantages are lost to a Plantation, under certain combinations of soil and circumstances, when it is planted *thickly*, but I would not either rate the loss too highly, or express my opinion with unseemly positiveness: my notion is, that the supposed advantages of planting thickly may generally be supplied by *early, judicious pruning*, and that the progress of the Plantation would be facilitated thereby: that, in fact, a Plantation of trees at a distance of three feet, being properly assorted, having had a good start, and suitable treatment in all respects afterwards, would reach any given point as to size, and quality, in less time than would another Plantation, upon the same soil, if the method of either sowing acorns, &c., or planting very thickly, were adopted. In saying this, I by no means wish to condemn the practice of thick planting; to do this,

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in the face of proofs of success, such as I have described as existing in this country, would be an absurdity of which I would not willingly be guilty ; but at the same time, I would not hesitate to range myself among those who *prefer*, under ordinary circumstances, to plant at a moderate distance, and rely upon *early pruning*, for securing the object which the close planter has in view, viz., length of bole, or stem, and clearness of grain.

I come now to remark upon the

Present mode of managing Plantations after they are made.

Abiding still, most strictly, by the rule laid down for myself, to deal with every part of my subject practically, I proceed to observe, that the instances where Plantations are treated with due regard to the principles of Arboricultural science, are not the rule, but the exceptions to the rule, as every scientific planter, who has looked round him, must know.

Instead of the trees intended for timber being nursed with the tenderest care from their infancy—instead of their being treated according to the known and fixed laws which regulate, and effectually control, the economy of vegetable life, whether men attend to them or not—they too frequently meet with treatment which is in direct opposition to those laws. I shall show this as clearly, and as plainly, as I can.

When a gentleman has decided to plant, when he has fixed upon the right mode of doing it, and has finished it in a proper manner; so far he has done all that could be expected from him; but if, after this, he leaves his Plantation to itself for five, ten, or fifteen years, he transgresses the laws to which I have referred; and his error is one of *omission*.

Again: were the same gentleman, after the lapse of ten years, or even less, to enter his Plantation, and cut and thin *very freely*, he would violate those laws by an error of *commission*, and in this case, as well as the other, the Plantation would very materially suffer.

A Plantation which should be subjected, at so early a stage of its existence as ten or fifteen years, to the ordeal of both these classes of errors, could have but little chance of succeeding: it could not be expected to make any more than very slow progress after such treatment as this: and yet this is exactly the way in which many Plantations are managed, at *all* stages of their growth. I have recently met with a splendid Larch Plantation, which has never been thinned, from the first, except by "fits and starts"; of which injudicious treatment, I could see very serious "outward and visible signs." Although it is upon exceedingly weak and poor land, it would have produced, *if it had been properly managed*, a fine class of Larches, which would have yielded to the proprietor an abundant return upon his outlay. If any one doubt this, let him look around and see if he cannot find a Plantation of forty or fifty years growth, which is crowded with trees—say of Larch only—and he will, upon examination, perceive that there are two or three distinct classes of trees still standing, all of which ought, long before, to have been taken out; and that there is *but one class of*

Larches, probably, which should be standing. The other two classes which I have just mentioned, would be found, if the fact could be clearly come at, very nearly of the same size as they had been many years before; inasmuch as they could not possibly make any wood, being themselves overtopped by their more thriving and vigorous neighbours. It is perfectly obvious too, that the injury arising to the Plantation would not stop here. So long as under-strappers were allowed to remain, they would, to a certain extent, have the effect of preventing the admission of light and air into the Plantation, which would materially affect the health and the progress of the standard trees.

The errors of *omission* are both serious and numerous: those of *commission*, great though they be, are not equally so. The former are generally first in the order of time, for where one Plantation is injured from *too early thinning*, there are ten that suffer for the want of it; and this early neglect affects the vitality and prosperity of a Plantation much more than might be supposed. Omitting to do what ought to be done will, however, be very prejudicial to the

health of Plantations at any stage of their existence, and it is quite well known to the experienced Forester, that they ought ever to be watched with most tender care, until the planter is fully satisfied that he has completed the nursing and training of a sufficient number of standard trees, to furnish the ultimate crop.

But errors of omission sometimes admit of remedy; whereas, if injury is committed by excessive thinning, or by cutting down trees which ought to have remained, it is often difficult, and sometimes impossible, to repair the mischief that is done. Both the errors to which I have alluded, must be avoided by the planter who would desire to have a healthy and *continuously thriving* Plantation.

Having considered well the following points, viz., the preparation of his land—the selection of the species of trees that he will plant—their size and quality—and the distance at which they shall stand from each other, he must remember that, from the very first, they will not only require, but they will well pay for, his closest attention. During the first seven years, he may, probably, have

little else to do at them than to *keep the land clean*; but this will, in some degree, depend upon the distance which he has chosen for them; and on the kind which he intends for the final crop of timber. But whatever *they* may be—whether the Oak alone, or along with some other species, the trees intended for timber will demand the peculiar, the unremitted, attention of the planter: his object must ever be to deal with all the rest, with distinct, direct, and positive reference to *the careful nursing of those*: and it must always be borne in mind, that whatever be the fate of the *nurses*, those which I will again distinguish from the rest, by calling them the *standard trees*, must, if possible, be kept in vigorous health. This can only be done, concurrently with the ultimate object of securing great length of bole, by *pruning* of some sort or other. If the trees are so planted as to insure *natural* pruning, no other, *except of the nurses*, will be required, but the first operation will be *thinning*; which should be done with great care and judgment. Where it is not so done, it is more than probable that trees will be taken which should have been

left, and the contrary. As it respects the Oak, the principal point to be aimed at is, to spare all those, as the thinning goes on, that have the best defined heads. This will be an easy matter with an experienced and well-taught planter, or woodman, and the difficulty, if any there be, will be less at each succeeding thinning, as the heads of the trees develope themselves.

But when trees are not planted so thickly as to insure length of bole by natural pruning, they must be pruned with the knife and the bill-hook, and the earlier the operation is begun, the better.

I doubt not but some of my readers will stamp this advice with their unqualified disapprobation. It may be very good and correct notwithstanding. My own experience, as well as that of many others whom I have consulted, convinces me that the notion, which so extensively prevails, as to the injurious effects of pruning, is *decidedly incorrect*. It may have had its origin in the evidence of injury to timber, which has been furnished by *injudicious pruning*; and thus what would have else been universally seen to be necessary, has

come to be almost universally condemned: but this is a common error, and has been too often shown, to render it necessary for me to expose it here. Some very valuable observations on pruning have been published by Mr. Main, in his excellent little work, entitled "The Forest Planter and Pruner's Assistant." At page 53, the following paragraph occurs: "But the only part of a woodman's duty which does not appear to be well defined, or at least not generally agreed upon by practical men, is relative to the necessity of carefully pruning and managing the trees during the first fifteen or twenty years of their growth."

I quote the last member of the above with entire approbation: that is, so far as the necessity for pruning is recognized in it: and I further think, that the reasons which are given by Mr. Main for pruning, and the manner in which he has illustrated his principle—the clear and satisfactory way in which he has treated the whole subject—entitle him to the confidence, and to the thanks, of all who are interested in the growth of trees. But I am very far indeed from agreeing with him in the opinion so adventurously given,

that "the best methods of preparing the ground for the reception of the plants—manner of transplanting—the soils most suitable for each species—are all *thoroughly* and *universally* understood." My belief is, on the contrary, that comparatively few planters, or woodmen, *do* "*thoroughly*" understand these matters. If they did, their practice would not be so extensively wrong as it is. If it were so, why have planters so widely differed? Why is there seen such discrepancy in their modes of management? But what does Mr. Main wish his readers to understand by the term "*practical men*"? If he refer to those who have the oversight and the direction of the practical operations included in the "preparation of the soil for the reception of the plants—manner of transplanting—the soils most suitable for each species, &c."; and if he wish to convey the idea that, by this class of persons, these points are "*thoroughly and universally understood*," I hold him to be wholly and widely wrong: but if he only mean that *scientific men*, who have well studied the subject, and who have written upon it, and *really intelligent woodmen*, are agreed as to the best practice, I do not greatly

differ from him ; nor do I conceive that the main point, at which I have aimed in this publication, will be at all affected by any concession which I make to this effect : my principal object has been, and will be, to show that, however clearly and strongly may have been shown, *the propriety of acting in conformity with the principles of science*, in the original formation of Woods and Plantations, in the planting of Hedge-row Timber, and in the general management of them all, the *practice* of “*practical men*,” has been, “except as before excepted,” so bad, that the most charitable conclusion which can be drawn is, that they “*thoroughly misunderstand* almost every part of the subject ! It seems rather to me, that instead of there being only one point in their practice on which they need enlightenment, that there is but one on which they may be said to agree, and that is in a *thorough* contempt for all rules, all principles, all science ! in other words, that this class of persons has displayed an amount of ignorance, (which, however, has been more their *misfortune* than their *fault*,) and the want of a proper apprehension of the nature and extent of their obligations, and duties,

which has no parallel in the management of any other description of property.

But this is a digression: I pass on, therefore, to the question of *pruning*, on which I would again commend to the notice of my readers, the valuable remarks of Mr. Main, as well as some excellent practical observations from the pen of that veteran in the service, Francis Blakie, Esq., late Steward to the Earl of Leicester, from whose small pamphlet, entitled "A Treatise on the Management of Hedges and Hedge-row Timber," the most useful information may be gathered.

Mr. Main's is an able and lucid examination of the question of pruning, and, to my thinking, most fully and satisfactorily settles it. He shows that when pruning is properly done, and when it is commenced *early* enough, and so managed as to secure the desired result in fifteen or twenty years, it may not only be done with safety, and without material injury to the timber, but that no other plan or practice will answer so well. This he clearly proves upon scientific data, familiarly illustrated by numerous plates, and confirmed by practical statements.

If, however, it were only from *neglecting to prune* that the Plantations of this kingdom had gone wrong, the "mismanagement" would not have furnished a subject for remarks so strong as it now does; but, as I have stated over and over again, the practice is, in most cases and on many accounts, at every stage of their progress, almost as bad as it can be.

The treatment which a Plantation ought to receive, may be comprised in a very few words. The principals will require pruning from an early period after being planted, and the pruning must be continued, more or less, according to circumstances, either every year or every alternate year, until it is from fifteen to twenty years old; and, during the same period, a small portion of *thinning* will probably be required. As to the *nurses*, they must be watched constantly after the fourth year, and they must be treated with sole reference to the prosperity of the other trees; *they* may, therefore, be pruned, or lopped in any way that will best subserve that end. Of course I am now speaking of Plantations where the trees are not

put nearer to each other than three feet, and when, in consequence, they must have *artificial* pruning.

In cases where pruning begins *soon enough*, the question which has been raised as to the manner of doing it—whether by *close* pruning, *snag* pruning, or fore-shortening—will not apply. All the principals should be *close pruned* with a sharp instrument, care being taken not to wound the bark too extensively. The principle to be kept in view at all times, when dealing with a Plantation, is, *to subject it to no sudden changes*, but when pruning is found to be insufficient, to commence a course of *gradual thinning*, which shall not, in any considerable degree, at any period, *disturb the temperature of the Plantation*. If this point be duly attended to, and a sound judgment be exercised in selecting the principals, the planter's most sanguine expectations will not be disappointed.

So far as I have ventured to offer suggestions for the *proper* management of Plantations, I have intended them to apply to such as are not over

twenty years of age ; but it is well known to all who concern themselves in such matters, that a class of Plantations ranging above that age, up to forty or fifty, may be met with in various localities, which stands much in need of better "management." In all cases of great neglect, which has been continued more than twenty years, the nicest judgment is necessary. The difficulty is, however, always in proportion to the *degree* of neglect. Where the trees have been put in thickly, and nothing, or almost nothing, has been done, little can be expected even from the most judicious treatment ; but still the means ought to be tried, for one thing is quite certain, viz., that the longer remedial steps are put off, the less chance there must be of their doing any good.

If, when the Plantation has been thus neglected, a person is called in who does not fully understand what he is about, irreparable mischief will be done : he is almost sure to thin *too freely*. A proprietor of long neglected Plantations must, therefore, be well assured beforehand, that the person he employs will be guided in the course he

takes by correct views, both practical and scientific, upon the whole subject; and when such is the case, the most suitable and appropriate plans will be adopted.

Should any one demand of me before I close, some data on which he may judge whether or not a Plantation is in a condition requiring unusual attention, I offer the following :

First: If, upon examination, it be found that the trees intended for timber have not an aspect and position superior to the others which are around them :

Secondly: If, at any period after twenty years from the time of planting, it be found difficult to identify and point out the trees which are to be the final crop :

Thirdly: When there are any decided indications of a want of health and vigour, there is proof sufficient that something more is required to be done than has yet been done. The grosser cases of Plantations which have never been entered for any purpose, for five, ten, fifteen, or twenty years together, need not be pointed at. Every

one who sees them must perceive the necessity of their being relieved without loss of time. No plant, of which we have any knowledge, can exist without light and air, and in proportion to the extent to which they are excluded from Plantations, will be the injurious effect produced upon the health of the trees. In fact, it may be laid down as a universal rule, that *in proportion to the judgment and discrimination which are exercised in gradually admitting both light and air into Plantations, of almost every description,* will be their healthy progress.

I conclude my remarks on this part of my subject by observing that, having admitted, as I most fully and readily do, that a *few* instances may be met with in almost every county where the science of Arboriculture is tolerably well understood, and its principles carried out, I must still contend that cases enough may be found—First; of a want of preparation of the ground: Secondly; of an improper selection of plants, either as to kind or size: Thirdly; of an unsuitable admixture of them: Fourthly; of mistakes

committed as to their distance from each other :
Fifthly ; when they are injured for want of early
attention : Sixthly ; when injury is done to them
for want of, or from imprudent, or excessive,
thinning, to fully justify me, or any one else, in
bringing before the public the "*mismanagement*"
of Plantations.

CHAP. III.

HEDGE-ROW TIMBER.

IN commencing this, the third part of my subject, I am fully impressed with a sense of its magnitude and difficulty ; and nothing but a thorough conviction resting on my own mind, of the truth of the position which I have taken with reference to the *present state*, and the *present management* of Hedge-row Timber, would have emboldened me to give expression to views which cannot but be unpalatable to many, however just they may be, and however strong their claim, to the serious notice of others. I am fully prepared to expect that censure may be dealt out by some, in not very measured terms, but this does not move me: having nothing but a plain, unvarnished tale to tell, I shall tell that tale as fearlessly as if

I were about to pour sweetest music into the ears of those who may read. I know whereof I speak; and while I have as little fear of any one *successfully attempting to disprove what I shall advance*, as I have at present, I can contemplate, without a single disturbed feeling, the liability to which I shall assuredly expose myself, of having sundry missiles thrown at me by those who are deeply implicated in the present "mismanagement" of this valuable property. Thus much with reference to those who are in offices of trust and confidence, as the managers of Woods, Plantations, and *Hedge-Rows*, if any such shall favour me with a perusal. But I may not proceed any further, before I say a few words in deprecation of the displeasure of a more important class of persons who will, I trust, do me the honour to read my "Remarks"; I mean, the proprietors of Hedge-row Timber. To these—or rather to that portion of them who have hitherto paid little attention to this part of their property—I would say, let my observations be "weighed in the balances," and, if they are "found wanting," let these be set against what cannot be called more than a venial

error—an error of judgment—the strong, the ardent desire that I have to see introduced the correction of what I have, at least, *deemed* to be, a serious mischief.

If Hedge-row Timber has been “mismanaged”—and who can doubt it—on whom shall the blame fall? As I have more than once said before, *not* on a class of men who, from their education, must necessarily be limited to the mechanical duties connected with their office, but on the Owners of Timber, from whom either directly, or through the agency of persons duly qualified, such rules and regulations ought to proceed, as would insure a better system of management. Practices are allowed, and such a state of things is permitted by the proprietors of Hedge-row Timber, as abundantly prove that many of them have never either understood its value, or given themselves the trouble to enquire whether it was under a course of suitable treatment or not.

I have stated that I consider the question which I am handling a difficult one. I feel it to be so—not because I have any difficulty in proving “mismanagement” on the part of those who

have to do with the timber of our hedges—not because I can feel a *doubt* that my statements will carry conviction along with them; but because I must necessarily come into collision, both with the refined tastes, and with the prejudices, of many of my readers. For instance: if I assert, as I do without any hesitation, that many Noblemen and Gentlemen suffer their Hedge-row Timber *to stand much too long*—where is the admirer of the beauties of landscape scenery, who will not instantly, and perhaps indignantly, throw down my book, and charge me with being the most presumptuous of grumblers, and, as to *taste*, a very heretic!

If to such a charge as this I plead “not guilty,” as, after all that can be said, I really must do, I am aware that I must be prepared with a very strong defence. I think I am so prepared. My defence will rest on three principal points, which it will be my endeavour to bring out in the course of my “Remarks: viz.: First; I shall show that the magnitude of the sacrifice which arises from Hedge-row Timber being suffered to stand so long, is disproportionate to the good resulting from it. Secondly; that the embellishment of a landscape

does not necessarily include *the perpetuity* of any one race of timber trees. And thirdly; that the present mode of "mismanaging" Hedge-row Timber, is a perpetual offence against good taste.

Although I have arranged my three propositions as above, I do not intend to bind myself to take them up again, and dispose of them in consecutive order: I have neither time nor the ability to adapt my "remarks" to the niceties of exact logical arrangement; it will be sufficient for me, if I shall succeed in leaving upon the minds of those who may read them, an impression of their truth, If that result is arrived at, it surely will be quite sufficient to draw the particular attention of proprietors to the subject; which will be more than half way towards securing the improvement which is so loudly called for: and that would be as much perhaps, as could at once be reasonably expected.

It may not be amiss to glance for an instant, at the value of the property about which I am writing. Few people, I imagine, have any proper conception of the aggregate amount. It is, of course, impossible to offer more than a conjecture

on the subject ; but probably it is not less, in England alone, than One Hundred Millions sterling !

It is quite clear that a course of management which only, in some of its details, falls short of what it ought to be, would involve, as it affected such an immense investment, a very serious loss to somebody. How much more serious then, must it be, if, not only some of the minor details of management, but the entire course of treatment, be radically wrong, as it respects a considerable proportion, and very defective indeed as to the remainder ? It would be a waste of time to stop here with a view to argue, in proof of what must appear to every one to be nothing less than an *axiom*.

That proprietors of Hedge-row Timber are not solely influenced by considerations of taste in their management of it, is most evident to an experienced eye ; but the *heavy loss*, which is consequent upon allowing it to stand so long, has, probably, never been fairly understood by them, or some efforts would have been made to prevent it.

If a Nobleman or Gentleman merely suffered his timber to stand *beyond maturity* in the neigh-

bourhood of his house, or on the domain where his mansion stood, however extensive it might be:—or if he generously spared the trees which, though at a great distance from his residence, were so placed as to enrich, if not constitute the principal beauty of, some splendid scene in nature, no one, who possesses a grain of taste, would regret it, but, on the contrary, would feel grateful for this sacrifice to one of the most hallowed emotions of the heart, when surveying the Creator's works, which are all perfect; and the touches of whose pencil are all loveliness—whether as seen in the refreshing beauty of foliage which distinguishes the vernal season, or the mellowed minglings of Autumn's enchanting exhibitions: but when it is considered, that a majority of the Nobility and Gentry, thus treat their *remote* and even *most distant* estates, where besides, there is nothing particularly attractive in the scenery, the propriety of the course which they pursue may, I think, be fairly questioned. Some other reason therefore, than a deference to the principles of good taste must be found, in order to account for their conduct; and in looking round for a reason I should say, a good deal must be set


down to *indifference*, and *pure neglect*. This I say, because it will *not* admit of question, that *a most extensive loss* arises, both to themselves, and the community in consequence; and it is not often that gentlemen wilfully close their eyes to the importance of pecuniary considerations, except there is some powerful and justifiable reason which leads them to do so.

Without speculating further as to the precise cause, it is certain that the amount of property which is thus wasted, absolutely wasted—and in almost every case without any advantage to any party whatever—is enormous, as it would be easy to show by statistical details and calculations, applying to any estate where this *horror of felling timber* may have existed for half a century. Were this accurately done, there could not but be such a showing, as would fully establish the truth of what I have advanced. There would indeed be no difficulty in fixing upon an estate, in any locality, which would illustrate my position, but I shall not here attempt it, for various reasons, which will be obvious to all. It would be travelling beyond the bounds of legitimate remark, were

I to refer to *any particular estate*, and any other references, however accurate in point of fact, would not be sufficiently specific. I would rather recommend any gentleman whose estate may be pretty well covered with timber, already, or long since, arrived at maturity, to make as near an estimate as he can of its present value, or procure it to be made; and having calculated the amount which would be exhibited of the gross sum at *compound interest*, for any given term of years, then let him "try back," and endeavour to ascertain what, according to this mode of calculation, may have been his individual loss. But when a gentleman coolly makes up his mind to allow his Timber Trees to go to decay without ever *intending*, or *wishing*, to make any thing of them, why then, in that case, nothing can be advanced, but to suggest the means of protracting their existence to the longest possible period.

It is impossible not to do homage to the feeling which prompts a gentleman to make so large a sacrifice to taste, as to suffer the greater part of his Hedge-row and detached Timber to perish by slow decay; but if it can be proved that he acts

upon *mistaken views*, and that, by a better system of management, his object might be gained without the very serious pecuniary loss which, on the other plan, he must necessarily suffer, it cannot be doubted that such a suggestion ought to command his instant attention. It will hardly be denied, I think, by any one who fully understands the subject, that *such a regular succession* of Timber Trees in the Fields and Hedge-rows might be secured by a proper system of management, as would sustain and perpetuate the beauties of the landscape, while, at the same time, *nearly* every tree should be taken in its turn as it arrived at maturity. It would, of course, require an entire change of system, or rather of practice, and the change would necessarily involve a considerable outlay, inasmuch as a constant supervision would be required from the time of planting, but whatever might be the expense, it would be amply returned; and whatever might be the apparent difficulty, it would not be such but that skill and perseverance would be sure to surmount it.



If then the objection which would be made by the man of taste, to the felling of Hedge-row and detached Timber, could be effectually obviated, by providing a regular succession to take the place of such as might be cut down—for the difference of a few yards in the *site* need hardly be taken into the account—one great difficulty, at least, would be overcome; and instead of wasting, as is done under the present practice, a quantity of Timber, the aggregate value of which makes it an object of *national* importance, the growers might take down their trees when they arrived at maturity, and thus produce a constant supply of the best sort for home consumption: and it will not surely be argued by the most determined advocate for free trade, that it would be for the interest of the English Gentleman to give a higher price for Foreign Pine than he would be able to make of home-grown Oak! No! emphatically No!! When the navy requires it, by all means let it be so appropriated, and if the demand be sufficient from that quarter, the relative price will be kept up, but let not English heart of Oak be reduced in our home market below the value of an

inferior article, with all the costs of transit added to the original price. This were indeed to show a most extravagant and unaccountable preference of a crotchet over the obvious dictates of reason, and the suggestions of prudence. It would indeed be to drop the substance, and grasp at the shadow.

I trust I may now conclude that I have satisfactorily proved, not only that the "magnitude of the sacrifice which the present practice involves is disproportionate to the good resulting," but that "the embellishment of a landscape does not necessarily include the perpetuity of any one race of Trees." In handling the remaining proposition, and in endeavouring to prove that the present treatment of Hedge-row Timber is "a perpetual offence against good taste," I shall at the same time, be accumulating evidence in support of the other two.

It is proper to remark before I proceed any further, that when I speak of Timber being allowed to stand too long, and of the consequent heavy loss upon it to the proprietors, I refer to such as belongs to the Nobility and Gentry, for, although their example has in this, as well as in every thing

else, *some* effect upon those below them, it does happen that, in this respect at least, the *middle classes* are wiser in their day and generation than their superiors, the Timber upon small estates being generally taken down at an earlier period than on large ones. There is indeed among the higher orders—of course with a few exceptions—a prejudice against felling Timber, older than the oldest Timber Tree in existence; and as *strong* as the most enthusiastic admirer of the beauties of landscape scenery can desire it to be: and so far is this feeling carried, that, by many, Timber of the most unsightly character, and in situations where it can be associated with no idea connected with the scenery, is religiously spared, and spared long after it has ceased to be either useful or ornamental where it stands.

Having ventured thus strongly to point out the loss to proprietors, I will now show, by an example, how the community is affected by the disinclination to fell one particular kind of timber; viz., the Ash. This tree is hardly ever cut down before it becomes exceedingly tender; and as almost every agricultural implement is either

wholly, or partly composed of it, the consumers—those who wear out the wagons and carts, the ploughs and harrows—are proportionate sufferers; for it cannot for a moment be supposed, that timber which is in the last stage of decay, or indeed, approaching to that stage, will wear half so long as that which is cut down as soon as it has arrived at full maturity. The period when it has done so, will be indicated to a practiced eye, at a single glance, even with that class of trees which has had fair play; or in other words, where *premature decay* has not been brought on by mal-treatment. But the latter class is by far the most numerous, and it requires very little either of science, or of knowledge of a practical kind, to teach a man how to deal with them. It is of no use to let them stand. If they are not wanted for ornament, the sooner they are felled the better, for the process of decay is very rapid in this particular tree. Their early removal is further necessary, because they injuriously affect the Farmer in another way, as I will show.

The roots, &c. of one single Ash Tree are said to amount to a million in number, and to extend

themselves as far all round the bole as the branches. I do not profess to be able to form a very decided opinion as to the number of the roots, rootlets, fibres, &c., but I have seen quite enough of the habits of the tree to convince me, that the roots extend themselves much farther than is here supposed; and it is well known to all farmers, that to a distance far beyond this, vegetation is almost totally destroyed; and that, near a Hedge-row (dividing two arable fields) which is filled with filthy, scabbed, stunted Ash Trees, which, from "mismanagement," have been brought into such a condition as positively to be making no progress at all, *sow what he may*, the farmer can never *reap* any thing: and yet these unsightly things, which are the latest of all other of our common deciduous trees, in getting their foliage, and almost the earliest out again, are suffered to linger out their *feeble*, but *blighting* existence, until by slow decay they become so unsound, that the wind blows them down, and they are fit for nothing but the fire! or, if they do not actually reach this stage, they are only cut down because the owner has the fear of such a result before his eyes! A

volume might be written with reference to this particular tree, were it necessary to take up every one of the points which present themselves, as condemning the present practice in its management, but that is not needed, for the *Ash Tree* is so generally met with in a diseased state, that it may be considered as the subject of grosser "*mis-management*" than any other of our domestic trees. If any one still deny this, let him look round him and say, why Hedge-rows so abound every where, in puny, sickly, Ash Timber, which *cannot possibly attain to a useful size*: and when he has confessed the fact, that they really *do* exist in that state, I will reiterate the assertion, that the cause is bad management! If *the present condition of Hedge-row Ash, generally*, does not prove "*mis-management*," I am at a loss to know what does, for when the different kinds are planted upon a congenial soil, *if they be properly treated*, they will continue to grow, more or less rapidly, according to circumstances, and for a longer or shorter period, as the natural term of their existence may rule: but as they are now treated, *they are never healthy*, for the principle of decay is introduced at a very

early stage of their existence, and in consequence, premature old age is brought on. To the absence of early training, may be attributed much of what is seen to be wrong in the present condition and quality of Hedge-row Timber, but much more to the vile practice of *mutilating the trees*, which almost every where obtains. There is, indeed, in some quarters, such perfect indifference manifested about the well-being of the trees, that *free licence* is allowed to the tenants of the land to do as they will with them: and *free use* they make of it, as may well be supposed, and as is abundantly evident in all such places. And why should it be otherwise? It has so long been the practice, and it is so far out of their way to really understand the matter, that farmers may well be excused. They cut off the roots, and reduce the extent of the branches, of their enemy, in *self defence*; and without having the remotest idea that they are doing so serious an injury to the property of their landlords. This is fully proved by the fact, that they treat their own trees in precisely the same way. It is, then, to the indifference that has hitherto been manifested by the proprietors of

Hedge-row Timber, and the consequent prevalence of mistaken views on the subject, that the present state of things is to be attributed. Some gentlemen do indeed introduce into their Agreements, clauses affecting to provide against the *mischievous pruning* which is here condemned, but, except in the neighbourhood of a mansion, where a strict look out is generally kept, they are quite *inoperative*—they are a dead letter, for not only does the *pruning* go on, but, as I have just hinted, the trees are often attacked *below too*, and deprived of their *roots*, as well as their branches, thus cutting off their supply of nutriment from the atmosphere above, and from their legitimate sources of supply from the soil. Both these practices ought to be *most strictly interdicted*.

My indignation and regret have a thousand times been excited, on seeing the noblest of all our Hedge-row Trees, the Oak, clipped of its beautiful proportions, and reduced by repeated *snaring*, as it is most aptly called, to the capacity and shape of a huge *besom*! and by this truly infamous treatment, deprived not only of all its scenic beauty, but actually of its specific character! and, if not

altogether stopped in its growth, rendered utterly worthless for application to the chief end and purpose for which it is adapted and intended. I need not say, that I mean—the building of ships.

Upon this subject there ought not to be two opinions: neither will there, among those who really understand it; but it is much to be lamented, that a very large portion of the Hedge-row Timber of this country is in the hands of persons who either do *not* understand the management of it, or who are indifferent about it. It very frequently happens, that there is no person but the Land Steward, who can make any pretensions to a correct judgment in the matter, and he has often quite enough to attend to, without so responsible a duty as this is—being added to his department. He therefore, very naturally, attends to those duties which are indispensable; and as for the Timber, &c. &c. he only thinks about *it* seriously, when he wishes to ascertain *how much of it he can turn to profit.*

Every considerable estate ought to have a person upon it, whose attention shall *exclusively* be

devoted to the supervision of the Woods, Plantations and Hedge Rows, &c. He should be a *well-educated* and an intelligent man; and should be so *well-paid for his services*, as to feel that his employer has a moral claim upon him, for the entire devotion of his *mind*, as well as his physical powers, to the efficient discharge of his duties.

An inquiry into the *natural history* of Hedge-row Timber, if I may so speak of it, would furnish a field for highly interesting remark, and it would assuredly remove any doubts that might remain in the minds of those who have gone no farther than to *suspect* that the management of it has been bad. When it is considered that the Timber of our Hedges is the product of *chance*, or even worse than that, that it has grown to what it is, notwithstanding that it has been subjected to the most barbarous treatment; it is impossible not to perceive, that if it had been watched and tended as it *ought* to have been, it would have equalled any thing that could have been conceived of it.

The classes of trees which may be met with in our Hedge-rows are various, and are so situated in many places, as to really give rise to the idea just

now referred to—that they are found there, more as a matter of chance, than of design: and this may be assigned, partly at least, as the reason why they have been so neglected, or so shamefully used. If they had been planted, and if any calculation at all were made before planting, it might be imagined that a gentleman would wish to ascertain what would be the *surest* mode of raising a class of fine unblemished trees, whether they were Oaks, or Elms, or Ash, or any other kind; and having carefully, and at some expence, introduced them into his hedges, it is difficult to suppose, that he would either leave them to shift for themselves, or to the tender mercies of their natural enemies, the occupiers of the land on which they might be growing: it is therefore more than probable, that a considerable proportion of them are in the hedges more by accident than any thing else. But however that may be, the fact remains the same: they are, very generally, standing memorials of the ignorance of the men in whose care they have been placed, and a triumphant vindication of the propriety of my title.

If Hedge-row Trees have length of bole, they have it—not because they were properly trained and assisted when they were young, and therefore needed it, but—in consequence, most likely, of indiscriminate lopping and pruning at some former period of their growth, the fruits of which, although now invisible to the unpracticed eye, will appear hereafter, to the dismay, and serious loss, of the person who may have to saw them up.

I have elsewhere given my opinion very freely on the subject of pruning, but as it will be necessary just to glance at it, in connection with Hedge-row Timber, I will again take the Oak, which is almost the only tree that I would recommend for hedges. As this noble tree will naturally grow of a bush-like shape, when standing alone, it is absolutely necessary that it be pruned, or it will not acquire sufficient length of stem. I am not, therefore, the wholesale condemner of pruning, even of Hedge-row Trees, but I would have no pruning done after they had arrived at a certain age—say, twenty years: all work of this kind should be done during the *infancy* of the tree, or

not at all. I would much sooner *cut down a tree, if it had not sufficient length of bole*, and trust to the chance of raising a better *from its stool*, than take off *large branches, particularly if it was not over thirty years of age*. Indeed the former method of repairing the mischief of long neglect, appears to me as one peculiarly adapted to the circumstances in which some estates are placed, as to the timber; and I should not hesitate to adopt it upon an extensive scale. I have, in fact, seen many estates where I should cut down Oaks very freely, which have *not* length of bole, or which, from some cause or other, are *not healthy*; even though they might not produce timber enough to pay for the cost of cutting. There are estates within less than two hours ride of my residence, which are *apparently* well stocked with timber, but it is of such quality that, were it under my own management, I should instantly cut it down; and from a large proportion of the stools I should train up a new race of trees. These would, if well attended to, grow into a class and quality of timber, very little, if at all, inferior to maiden trees;

while, on the other hand, from those which are standing, *whatever length of time they may remain*, nothing can be expected, but a *small quantity of timber, and that of middling quality*. But to return to *pruning*. In a Wood, or a Plantation, trees will draw up each other to a certain length, and many of the lateral branches, from the exclusion of light and air, will die, and some of them will fall off; this is, of course, *natural pruning*: but in a Hedge-row, they have no such help, they will, therefore, require *artificial pruning*; which should commence at the time of planting, and continue until it can be seen that they will assuredly acquire ample length of bole. The kind of pruning which is here advocated *cannot possibly do any harm, if it be well done*, and done at a proper season. The soundness of an Oak will in no degree be impaired by it; and consequently, it will be, on all accounts, more serviceable for naval purposes, than if it were not pruned; for it will not surely be contended, that clearness of grain, and length of stem, are not likely to recommend it to the ship-builder. So far from having a doubt upon

this point, I am of opinion that timber thus carefully trained, will be, on every account, *incomparably superior* to that which is at present obtained from our Hedge-rows;—it will exhibit a healthy development, from the pith to the alburnum; so that wherever there is a *bend*, a *crook*, or a *knee*, in it, the purchaser will be sure that it is *sound*—whereas the very opposite is the case with by far the greater part of that which now comes into the market. The reckless extent to which the abominable practice of pruning, lopping, or *snaring*—whichever it may be called—is carried, renders the conversion of timber a very hazardous speculation, and should long since have taught the growers of it, to avoid the commission of such an error themselves, and to impose a heavy penalty on all those belonging to them, who should be found guilty of it.

To illustrate a little further the statement here made, and the opinion here given, it may be remarked, that the effect of such a vile mutilation of Hedge-row Timber as is, in almost every quarter, permitted, is seen and felt most in those very

parts where strength is most wanted, and which, *if sound*, would render the timber so much the more valuable. It is on the outsides of *bends* or *knees*, that blemishes are so frequently found, and which are often so considerable, as to reduce the value of a valuable crook to almost nothing.

These defects in timber are sometimes so far within the body of the tree, as to elude the scrutiny of the keenest eye, proving, in some very old trees, that pruning is not an evil of modern date. In a still greater proportion, as to the whole quantity, however, the eye of Ship-builders, or Timber Merchants—all of whom have frequently been bitten—will detect, from external appearances, the *snag-pruning*, covered over both with wood and bark; and consequently, they protect themselves as well as they can in their purchases, against the contingency of unsound timber, by shaping their offers accordingly. This, of course, affects the *seller* in no inconsiderable degree, and is one other reason why he should put a stop to the practice of pruning altogether, except when it could be done under the eye of his own Wood Manager.

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The last point connected with Hedge-row Trees which I shall mention, is the *planting* of them; but upon this part of the subject, I shall not say much. I might, indeed, have passed it over in silence, and still have fulfilled the requirements of my Title-page; but inasmuch as the planting of Hedge-row Timber, *must* form a part of an *improved* system of management, however it may be left out of the present practice, it does not seem quite right to overlook it altogether.

If Hedge-row Trees are to succeed at all, they must have a *good start*; and if they are to have a *good start*, there must, of necessity, be some trouble bestowed in the preparation of the site on which they are to be planted. In the fences of *new inclosures* there will be no difficulty at all. If the border, as it is often called, be well prepared for the *quick*, it will be in a right state for an Oak Tree; and it would really appear to be a piece of unaccountable neglect—an inexplainable circumstance, as the act of a man of business—if a tract of land were to be enclosed, and new fences put down, without the opportunity being seized to plant a suitable number of Oak Trees. I say, of

Oak Trees, because I am persuaded that it would be very difficult indeed to find a locality where any other kind of timber, other circumstances being equal, would be likely to pay so well. In the line of every Quick fence, then, I should certainly recommend that healthy *Oak* Plants, of four years old, which have been at least twice transplanted in the nursery, should be inserted, at a distance from each other—say, of twenty yards—and if they are properly guarded and *nursed*, nothing is more certain, than that they will become a fine race of trees. But planting young *Oaks*, or young trees of any kind, in an *old Hedge-row*, is quite a different affair. It is indeed an undertaking involving real difficulty, and requiring a very considerable degree of skill on the part of the workman, and of firmness and determination on the part of his employer.

It would be found all but impossible to rear a young *Oak* in the exact line of an old and vigorous thorn hedge ; but there are many situations which present much less difficulty. For example: In the year when a hedge is plashed or laid, where there is a moderate space on the bank which has

been raised when the quick was first planted—say, of a foot or more—there will be room for a tree ; and in all cases, where the bank has not been *pared down*, there will be more room than is here supposed. Many other places, such as the sides of the banks of large ditches, the gaps of hedges, &c. &c. may be met with, on almost every estate, which ought to be filled with Oaks, after the ground has been prepared in a suitable manner.

But, *a previous preparation of the plant is necessary*, Planting in Hedge-rows, where planting has been done at all, has been performed in the same ill-adapted way as every thing else relating to timber. The plants have been taken out of the nursery, indiscriminately with others, which have been intended for close planting ; instead of having such, and such only, as have been *twice or thrice shifted*, and each time into a more exposed situation, and wider apart, in order that they might acquire more fibrous roots, and induration of bark, and thus be enabled to cope with, and surmount, the disadvantages of their new position. Another point, which has previously been hinted at, is the *guarding* of the trees. No

matter what the expense may be, if a gentleman determines to have Hedge-row Timber, *he must guard it well.* It stands more in need of the watchful eye of the Wood Manager than almost any thing else: in fact, it is of little or no use planting at all, if a good and sufficient guard fence be not immediately put down: but, having put in good plants, and effectually protected them, I say again, I know of no reason why Hedge-row Timber should not thrive and prosper, and, ultimately, turn out as sound, as any other. That it is not so with the race of Timber Trees now growing, except to a very limited extent, I assert without fear of contradiction; and, with the same confidence, I plead this fact as my justification, when I re-assert, that their treatment, from first to last, is neither more nor less, than a course of gross "MISMANAGEMENT."

THE END.



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